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CONSUMERS' RESEARCH

Bulletin

September 1947

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Vol. 20 • No. 3 **BULLETIN** September 1947

Off the Editor's Chest

BACK in the days when household appliances were so plentiful that stores vied with each other in making generous trade-in allowances on old or used articles in order to induce consumers to buy new things, the demand for the services of repairmen was somewhat limited. In fact there was universal impatience with the whole idea of making things last, and repairing defects and breakages. Consumers generally preferred to turn in their old appliances and get new ones; they assumed, somewhat erroneously, that the new models would be free from the weaknesses of earlier models. During the war years, when new production and available stocks of refrigerators, washing machines, and similar items were reserved for use of the armed services, government agencies, and war plants, consumers gained considerable experience with repair and servicemen. In cases where expert repair and reconditioning services are available and the charges not exorbitant, it is likely that many will not buy new appliances (particularly at present prices) until the machines they are now using wear out.

Good appliance repairmen, however, are very scarce, and hard to find. One CR subscriber who purchased an oil burner on CR's recommendation several years before the war has had continual and expensive trouble with it. Only recently, in the course of obtaining a bid for a new burner, he learned that it had been incorrectly installed in the first place and that by expenditure of a fraction of the cost of a new oil burner for installation of a proper hearth for the burner, he could obtain first-class service from his present equipment.

Another CR subscriber wanted her five-year-old vacuum cleaner overhauled and wrote the manufacturer for the name of the nearest accredited repairman. When this representative examined the cleaner, he told her it was in bad shape and set a price of $49.50 on the job of renovating it. After checking with Consumers' Research, she took it to another repairman who made all necessary repairs, including correction of a defect of the hose, and furnishing a new bag and filter pad, for $3.15. She reported that the workmen commented that they "hadn't had such a good machine in the shop for months." More than two years later this consumer wrote CR that the cleaner was still in good working order.

Sewing machines, much in demand at present, almost never "wear out," according to Professor R. R. Parks of the University of Illinois. Some parts may be worn and will need to be replaced, cleaned, or adjusted, but these are not major repairs, and even obsolete types of machines can usually be made to sew. As a rule, putting a sewing machine into good running order requires only cleaning and oiling, employing the right type of needle, and making sure that the tension is properly adjusted. For this sort of service the charge should be very moderate.

(For those who are mechanically inclined, CR has a reprint on "Cleaning the Sewing Machine," available for 5 cents.)

Reconditioning refrigerators and other modern

(Continued on page 25)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, Helen P. Alleman, A. R. Greenleaf, and Charles L. Bernier. Editorial Assistants: Mary F. Roberts and B. Beam.

Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; cr—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high. Note that price and quality are completely differentiated in CR's listings; **a quality judgment is independent of price**; 46, 47—year in which test was made or information obtained or organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least a month before it is to take effect, accompanying your notice with statement of your old address with name in full. At least three weeks' notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel.

¶*CR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.*

★★★For a brief cumulative index of 1947 BULLETINS preceding this issue, see page 26.

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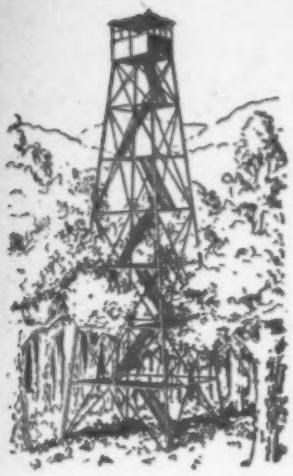


The Consumers' Observation Post

LARD became so plentiful last spring that the price dropped. This was an achievement for consumers in more ways than one. It seems that thrifty shoppers refused to purchase overfat cuts of pork, particularly at currently high prices. The result of vigorous protest to butchers, and consumer sales resistance was that the fat was made into lard instead of being sold at meat prices; more fat, more lard, lower prices.

* * *

NEW AUTOMOBILES are still so scarce that dealers parcel them out on a waiting list basis, but the dealer must play fair with his prospective customers and not jump his favorites ahead of the line. In Baltimore last spring the Circuit Court ruled in a particular case that new cars must be sold to customers in the proper order; if a customer could prove that orders placed after his were filled first, he was entitled to relief by court injunction.

* * *

SHOES THAT ARE TOO SMALL, that have too high heels, or too pointed toes, sometimes cause a condition known as "Morton's toe," points out a medical columnist. The symptoms are a severe pain over the ball of the foot between the third and fourth toes, and, in extreme cases, pain up the back of the leg and thigh to the hip. In its early stages, the difficulty can be remedied by resorting to properly fitting shoes. At a later stage, when the tumor, caused by the irritation of the foot, is well established, only a surgical operation can bring relief.

* * *

THAT THE HOUSING INDUSTRY is pricing itself right out of the market is no news to the weary home-seeker. What to do about it is another problem. One of the weekly news magazines last spring published a brief survey indicating that building costs are nearly double those of 1940. In Detroit, a builder pointed out that a house which could be put up in 1940 for $5090 would cost $9990 at current rates. Prices of building materials have increased more than 86 percent since 1939, with lumber leading at 200 percent. Labor costs are way up and labor productivity is put at only 50 to 60 percent of pre-war days. In Chicago, where time and a half or double time is paid for work on Saturday and Sunday, some building tradesmen are reported to take their two days off during the week, so that they can collect weekend pay at the higher rate.

* * *

BY PUTTING HIS PATIENTS ON A MILK-FREE DIET, Dr. Emanuel M. Rappaport of New York City was able to cure two-thirds of a group of sixty-seven patients suffering from diarrhea following a dysentery infection. According to the New York Herald Tribune report, butter, cheese, cream, ice cream, and chocolate were excluded. Milk-free bread and cake were prescribed, but no other specially prepared foods were required. The doctor indicated that, in the particular type of diarrhea involved, the patients had developed a sensitivity to milk which persisted after the infection had been cleared up.

* * *

FRAGILE BONES that break easily are characteristic of men and women who are getting along in years. This tendency can be counteracted by administration of hormones such as adrenalin (by a physician, of course) and of protein foods such as meat and eggs, according to studies made by Dr. Fuller Albright of Harvard Medical School. It appears that porous, light bones have plenty of calcium but lack the protein needed to make them normally dense.

THE NEW STYLES in women's dresses, suits, and coats, all of which show lower hem lines, are causing considerable dissension in various parts of the country. In some sections of the Middle West and in California, it is reliably reported that the longer length is meeting with stiff buyer resistance. The fall and winter coats are a particular problem, because no one knows just how long dresses will go. The short swagger coat for those who buy their fall clothes early is said to offer the safest compromise.

* * *

BACON should be broiled, for best retention of its thiamine (vitamin B_1) content, is the recommendation of nutrition experts at the Minnesota Agricultural Experiment Station. It was found in tests made at the Station that bacon cooked on a rack four inches below the broiler flame retained two-thirds of its original thiamine, while that cooked in a frying pan retained less than half.

* * *

SHOE PRICES have firmed, as the trade experts put it, which means in consumer language that they will not decline as was expected last spring, and, in fact, are likely to go up. The Wall Street Journal attributes the higher prices to a rising leather market, high rents, and peak labor costs (labor accounts for 25 to 35 percent of the wholesale factory price of shoes).

* * *

STOCKS OF CANNED FRUITS AND VEGETABLES are piling up in grocery stores and warehouses. New packs of the 1947 crop are coming in, and something must be done to clear the shelves. The time-honored method of American merchandising would be a clearance sale at reduced prices, but in these days when it is fashionable to look to the government for subsidies of every conceivable variety, canners and growers have proposed that the U. S. Department of Agriculture finance the purchase of last year's stocks for shipment abroad for foreign relief. Among the products suggested for inclusion in such a plan are canned peas, beans, and sweet potatoes, and dried raisins and prunes. Such a scheme would hit the consumer's pocketbook twice; first, it would serve to keep prices of canned goods at or close to their present levels, and second, it would use some of the money collected in taxes to finance the transaction and maintain canners' and jobbers' profits. Any day now we may hear that consumers who protest such an arrangement are heartless folk who want to allow people to starve.

* * *

RADIO SETS continue to be plentiful and consumers who have been waiting to replace their sets that did duty throughout the last five years will be glad to know that prices are going down. In fact, the dealers are wailing because price cutting has become the accepted method of doing business, if the trade journal Electrical Merchandising sizes up the situation correctly. It appears that reductions have been made on name-brand console sets in some sections up to $60; in another case a distributor cut list prices to dealers as much as 50 percent. Perhaps when the most pressing cases of need for washing machines and mechanical refrigerators are taken care of, consumer resistance in those fields will have the same salutary effect, and bring appliance prices down also.

* * *

HOW SANITARY ARE CONDITIONS in the bottling plants that turn out the soft drinks you customarily buy? It may be advisable for you to ask your city or county health department to make a check-up. A survey of 28 of Chicago's 50 carbonated beverage and 7 bottled water plants revealed that many of the 175 million pints of soft drinks which Chicagoans drink each year are made under insanitary conditions and operating methods, reports the Journal of the American Medical Association. The sanitary defects included: filthy plant surroundings, lack of cleaning and washing facilities for employees, lack of personal cleanliness on the part of employees, storage of caps, corks, and closures in dirty bins, and other disregard of need for proper protection of various factory processes from possible sources of contamination.

* * *

PHONOGRAPH RECORDS are commonly made from shellac, slate flour, powdered chalk, Congo gum, zinc stearate, carbon black, and scrap. Shellac has been scarce and expensive during the past few years. Now, reports Business Week, an extender or substitute for shellac has been devised by Dumor Plastics of Atco,

(Continuation of this section is on page 29)

Coffee Makers

THE seven coffee makers purchased for this study included five of the popular vacuum type, one percolator, and one of the extractor type. Six were heated electrically; of these, the controls of three were fully automatic, one semi-automatic, and two manual. The seventh was the all-glass, non-electric *Chemex*, probably the simplest possible form of coffee making utensil.

Design, materials, workmanship, filter media, and accessories of the coffee makers were appraised; a simple test was performed on each to determine whether or not coffee could be poured without having drops run down the outside of the vessel. The wiring of the six electric utensils was analyzed, power input was measured, and each was subjected to a 1000-volt proof-voltage test and checked for electric current leakage.

In addition to the engineering examination and tests, the most important characteristic of the coffee makers, i.e., their ability to produce good coffee, was determined. This was done by preparing six cups of coffee in each appliance, using exactly the same amount of water and coffee in all cases. The quality of the resulting beverage was judged on (1) comparative strength, based on color; (2) turbidity, based on clarity; and (3) sediment, determined by direct inspection of the lees after decanting. Brewing of the coffee was done exactly as directed by the manufacturer, using 6.2 grams of a single brand of coffee per cup of water, the size of the cup having been determined by using the volume marks present on several of the coffee makers. The relative effectiveness of the appliances in making coffee was judged from the results of this series of tests. Owners of the less effective utensils can, of course, produce sufficiently strong coffee, but with a loss of economy, by using a larger quantity of coffee. Ease of cleaning, another consideration of much importance to most housewives, was checked in connection with the brewing tests. To give best results any coffee-making utensil must be thoroughly cleaned and with some, this is no small chore, as the listings will indicate.

Universal Coffeematic, Model EA4400

Examination of these various coffee makers brought out some points of general interest which might be of value to the careful purchaser.

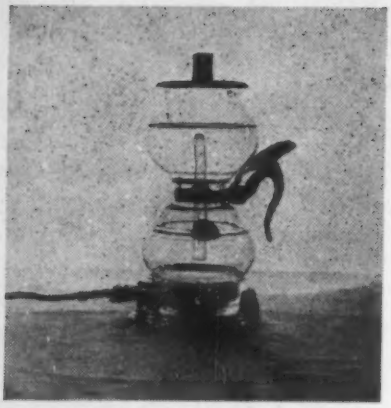
Three of the coffee makers, the *Sunbeam*, *Chemex*, and *General Electric* were marked to indicate the correct amount of water. This was found a very useful detail when making coffee and might well be adopted by all manufacturers.

The filter media used varied considerably in efficiency. Most efficient was the filter paper used in the *Chemex*, which produced very clear coffee. Coffee makers using cloth filters were found to depend partly on the formation of a "filter cake" of the coffee grounds, the *Silex* and *White Cross* upper bowls being designed to promote formation of the cake, and the effectiveness of the *Cory* glass rod depending almost entirely upon it. Cloth filters allowed some solid matter to pass through and their effectiveness for this use could stand being improved considerably. To attempt to correct this fault the *White Cross* used two layers of cloth. The *Silex* booklet mentioned a *Flavor Guard* filter which could be used without a cloth but this filter was not supplied with the *Silex* coffee maker tested.

A common fault of all cloth filters is their gradual accumulation of fats and oils which, after some time tend to be-

White Cross Coffee-Vac

Chemex

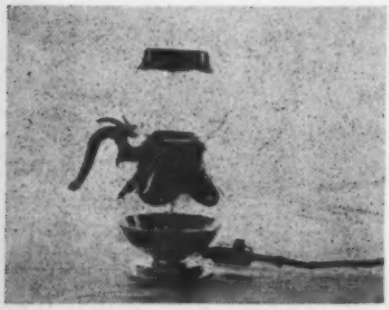


Cory Royal Rubberless, Model DCE

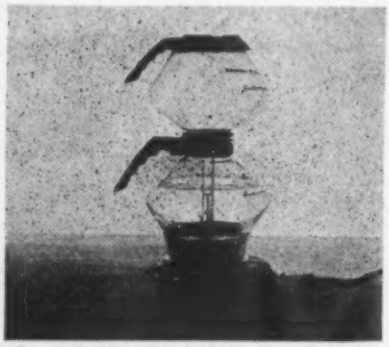
come rancid and impair the flavor of the coffee. This defect would be of importance only if the user failed to discard the filter frequently enough or did not give it proper care. Glass filter rods and filter papers (used but once) do not have this fault. The cloth filters cost so little (2c each, the same price as paper filters for the *Chemex*) that they could be discarded as often as filter papers. (It is perhaps well to remind consumers that the appliance itself is at best only a minor factor in the problem of making good coffee—which fundamentally depends upon use of a high-grade, freshly-roasted [not vacuum-packed] coffee of the proper grind.)

* * *

The speed of brewing and the attention required by each coffee maker in use was considered important, especially at the breakfast hour when most households have no time to waste on unnecessary motions or delays. In a general sense, the higher wattage units made coffee faster than those of lower wattage but the extra speed was not always in proportion to the greater wattage. The 1080-watt *Sunbeam*, for instance, was only two minutes or 1/7 faster than the 615-watt *Cory*, while the 745-watt *General Electric* was actually a little slower than the *Cory*, and each of the three was slower than the 450-watt *Universal* in which the heat was concentrated and particularly effective. Brewing time could be shortened in every case by the use of hot water but some of the directions commented that better coffee could be brewed with fresh, cold water. The *Silex* stove was designed to cool quickly as soon as the current was turned off, but the *Cory* and *White Cross* stoves did not have this advantage.



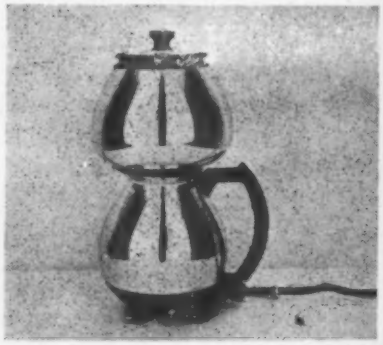
Silex, Cat. No. 1122-168



General Electric, Automatic, Cat. No. 139P8

The automatic coffee makers had the great advantage of requiring no attention; they could be started and ignored! The semi-automatic *Silex* required the user to turn the switch in the plug to the holding temperature desired, and also to turn it off, when through with the appliance. The *Cory* and *White Cross* had 2-heat stoves but no thermostatic controls; this made it necessary to operate the switches manually, and to remove the coffeepot from the stove. Water for the *Chemex* had to be heated in a separate utensil and the 3- to 5-minute brewing operation required the almost constant attention of the housewife, which could be a disadvantage in a busy or hurried household.

All of the electric coffee makers were found satisfactory as to leakage current and successfully withstood the proof-voltage test, except the *General Electric*. All poured without dripping or dribbling unless otherwise noted. Measured wattage input is shown in parentheses following statement of the manufacturer's wattage rating. Ratings are cr47.



Sunbeam Coffeemaster, Model C20-B

A. Recommended

Universal Coffeematic, Model EA4400 (Landers, Frary & Clark, New Britain, Conn.) $13.90. Chromium-plated percolator, with black plastic control knob and handle; well designed and excellent in appearance. Self-contained electric heating unit; fully automatic with simple, positive control circuit, which could be set for mild, medium, or strong coffee. Rated 400 watts (450), lowest of the electric coffee makers, yet second fastest as to time for brewing coffee. Quality of coffee about average. Very easy to clean, as grounds

were retained in basket and could be emptied into waste can or sink after which it was possible to wash out the basket without difficulty. 3

B. Intermediate

White Cross Coffee-Vac (National Stamping & Electric Works, 3218 W. Lake St., Chicago 24) $5.60. Typical glass vacuum type with black plastic lids and handle and black rubber sealing ring. Unpretentious but well-proportioned design. Had separate 2-heat electric stove manually controlled. Rated 600 watts (595). Took longer time for brewing coffee than other coffee makers tested because its stove needed considerable time to heat up. Quality of coffee above average. Had double-layer cloth filter. Filter clamp rusted during tests. Somewhat troublesome to clean as were others of the vacuum type. 1

Chemex (Chemex Corp., 41 Murray St., New York 7) $6 for 1-qt. size plus 100 filters at 2c each, $8 complete. One-piece thick-walled glass utensil, whose "handle" consisted of 2 pieces of plastic fastened around center of pot by means of a leather thong. In spite of its evident pretensions to "functionalness" in design, this coffee maker was very awkward to handle when full; it was almost impossible to avoid contact with hot lower portion of the pot when grasping the plastic "handle." Non-electric; water for making coffee had to be heated on stove or other unit. Brewing was by the extraction process and although the total time, including that for heating the water, was the shortest of all the coffee makers tested, almost constant attention was required during the 3- to 5-minute period of actual coffee-making, as the user had to pour water slowly over the coffee. Quality of coffee, excellent; clear, strong, and free from sediment. Though, because of its efficiency, it would be possible to use somewhat less coffee per cup with this coffeepot, the manufacturer did not recommend doing so. Dripped after pouring. Cleaning was rather difficult; thong had to be untied and "handles" removed before glass pot could be washed, which seemed quite needless trouble; constricted center made it impossible to reach bottom of pot except with a bottle brush or dishcloth dropped in to be swirled around. Utensil could not be placed over direct flame or on electric unit because glass walls, thick for mechanical strength, made it susceptible to breakage when direct heat was applied. Hence if contents cooled, reheating could be done only in a water bath. Would be of interest only to those desiring excellent coffee and at the same time having time to make it in leisurely fashion. 2

Cory Royal Rubberless, Model DCE (Cory Corp., 221 N. La Salle St., Chicago 1) $8.70. Typical glass vacuum type with black plastic handle and lids, similar in appearance to the *White Cross* but with bowls more nearly globular. Separate 2-heat stove, manually controlled. Rated 660 watts (615). Brewing time about average. Quality of coffee, below average; weak, turbid, and contained sediment. Glass filter rod did about as good a job as cloth and had some practical advantages (see text). Ground-glass surfaces were used in this model for sealing instead of the more usual rubber gasket, and operated successfully, but lack of gasket tended to make coffee maker unstable to handle. 2

Silex, Cat. No. 1122-168 (The Silex Co., Hartford 2, Conn.) $9.45. Typical glass vacuum type with white plastic handle, band, and dipper; chromium-plated metal top and ornamental skirt on bottom bowl; design judged somewhat too ornate. Had useful upper bowl ejector on handle which lifted bowl free of rubber gasket. Separate single-heat stove, semi-automatically controlled; the thermal capacity of the stove was adjusted to insure proper brewing time, but thermostatic control switch in cord plug had to be turned by hand to low heat (holding temperature); coffee was then held at selected temperature automatically. Brewing time longer than average. Rated 525 watts (510). Quality of coffee, fairly good; clear, and free from sediment, but very weak. When used exactly as directed for six cups, this coffee maker would always brew weak coffee because the stem of the upper bowl was short and as water heated, expansion of air in the lower bowl forced tepid water into the upper bowl; by the time the water was really hot, so much had already risen to the upper bowl that the stem end was almost uncovered, hence only a small amount of really hot water reached the upper bowl and the full strength of ground coffee was not released by the warm water. This difficulty (equivalent to a loss of 50 to 60% in efficiency in use of ground coffee) could be avoided by using the method recommended in the *White Cross* directions, which advised the user not to place the upper bowl in position until water was near boiling. Ease of cleaning about average for this type, but if coffee drippings or grease from nearby cooking lodged under metal apron of lower bowl, cleaning would be very difficult. Spring filter holder rusted during tests. 2

Sunbeam Coffeemaster, Model C20-B (Chicago Flexible Shaft Co., 5600 W. Roosevelt Rd., Chicago 50) $18.60. All-metal chromium-plated vacuum type. Excellent appearance. Fully-automatic self-contained electric unit. High wattage—1000 watts (1080)—would on some circuits require that care be taken not to plug in at the same time with another high-wattage appliance. The low heat was maintained by thermostatic control of the main element which might be disadvantageous from the standpoint of service life of the appliance. However, one of this brand using the same principle has operated for six years without developing trouble requiring service. Brewing time less than average. Quality of coffee, fair; strong, with only moderate amount of sediment, but very turbid. Because of elaborate method of mounting the filter, this appliance was more troublesome to clean than others of the type. Had ingenious method of fastening upper and lower sections together which, in addition to the all-metal-construction, would make the *Coffeemaster* safer to handle and sturdier than the glass vacuum units in average use. 3

C. Not Recommended

General Electric Automatic, Cat. No. 139P8 (General Electric Co., Bridgeport 2, Conn.) $15.10. Typical glass vacuum coffee maker with black plastic lids and elaborate clamp-on handles, which detracted from otherwise good appearance. Separate 2-heat stove, automatically controlled. Rated 750 watts (745). Brewing time greater than average. Quality of coffee, somewhat below average; considerable turbidity and sediment. Had low insulation resistance; failed proof-voltage test at 900 volts; otherwise would have been rated *B. Intermediate*. 3

Motion Picture Equipment

IN THE REPORT of tests of 8 mm. motion picture cameras which appeared in the December 1946 BULLETIN, the comment was made that only exceptionally good 8 mm. equipment is capable of producing movies that, as projected, can compare favorably with even mediocre 16 mm. equipment. No 8 mm. equipment is given a rating higher than *B*. This generalization applies also to projectors, because due to the inherent shortcomings of the pictures taken on the small 8 mm. frame and consequent poor definition caused by grain in the emulsion, even the most finely constructed projector could produce images on the screen that are only insignificantly better than those produced by 8 mm. equipment selling at much lower prices.

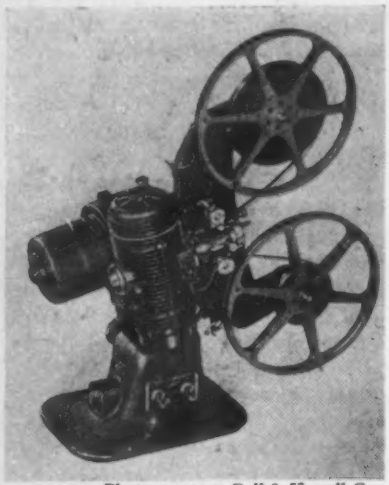


Photo courtesy Bell & Howell Co.
Filmo-Master "400," projector

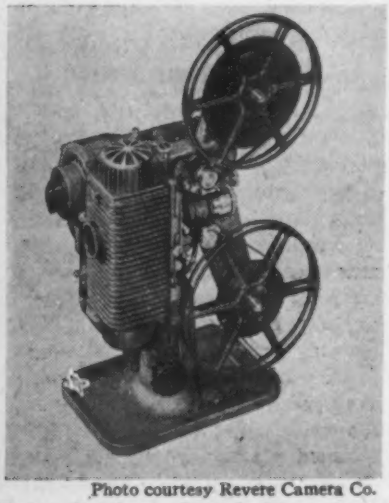


Photo courtesy Revere Camera Co.
Revere De Luxe, Model 85, projector

There are, of course, many people who cannot afford the higher operating cost of 16 mm. equipment (which is between two and three times that of 8 mm.), and who are satisfied with the results obtained with 8 mm. For those it is believed that the combination of a *Cine-Kodak Eight-25* camera and *Keystone*, Model R-8, projector may be expected to produce motion pictures only slightly less acceptable than the best that can be produced by any 8 mm. equipment and has the advantage of requiring only moderate initial outlay for the equipment.

All of the following projectors would operate on either a-c or d-c and had lenses of 1-inch focal length, definition in each case being as good as could be expected with use of 8 mm. film.

Listings of 8 mm. projectors are in order of merit as judged by CR's consultant. Prices in each case include federal excise tax.

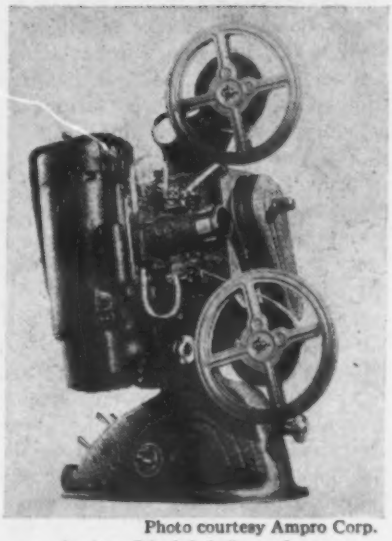


Photo courtesy Ampro Corp.
Ampro, Model A-8, projector

Projectors

B. Intermediate

Ampro, Model A-8 (Ampro Corp., 2835 N. Western Ave., Chicago 18) $168 with case. f:1.6 coated lens. Equipped with 500-watt bulb which gave most light on screen of any projector tested, indicating well de-

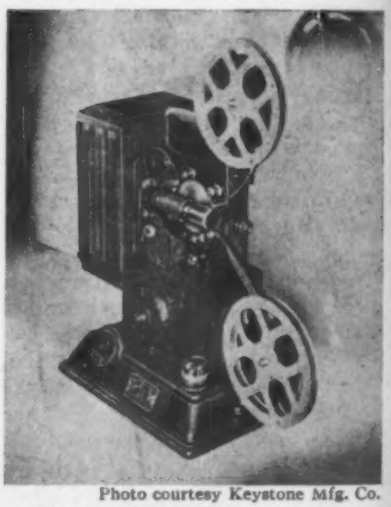


Photo courtesy Keystone Mfg. Co.
Keystone, Model R-8, projector

Photo courtesy Hedrich-Blessing Studio
Victor, Model 3, 16 mm. motion picture camera

signed optical system. Film was easy to thread and projector operated steadily without flicker; it could be reversed without shutting off the motor. Machine was very well constructed and would be rated *A* on the basis of quality of construction alone. **3**

Filmo-Master "400," Design 122, Model G (Bell & Howell Co., 7100 McCormick Rd., Chicago 45) $177.45. f:1.6 lens. Equipped with 400-watt bulb which gave noticeably more light than *Kodascope*, *Revere*, and *Keystone* (which had 500-watt bulbs) but not as much as the *Ampro*. Use of a 500-watt bulb, which manufacturer says can be employed, involves, according to instructions, risk of buckling film. Easy to thread. Full gear drive. Rewind equipped with safety devices to prevent rewinding when film gate is closed. Exceptionally smooth and quiet in operation, excelling the *Ampro A-8* in the latter respect. If quality of construction alone is considered, this projector would be rated *A*. **3**

Revere De Luxe, Model 85 (Revere Camera Co., Chicago) $120. f:1.6 coated lens. 500-watt bulb. Easy to thread film. Ran smoothly but less quietly than either *Ampro* or *Filmo-Master*. Steady operation without flicker. Construction fairly good, judged to be equivalent to *Keystone* but perhaps somewhat longer life might be expected from the *Revere* because of its slightly sturdier construction. **2**

Keystone, Model R-8 (Keystone Mfg. Co., Boston) $74.50. f:1.95 lens. 500-watt bulb. Slightly less easy to thread than *Ampro* or *Filmo-Master*. Operation steady and satisfactory. Judged a much better value than the *Kodascope Eight-33*. **1**

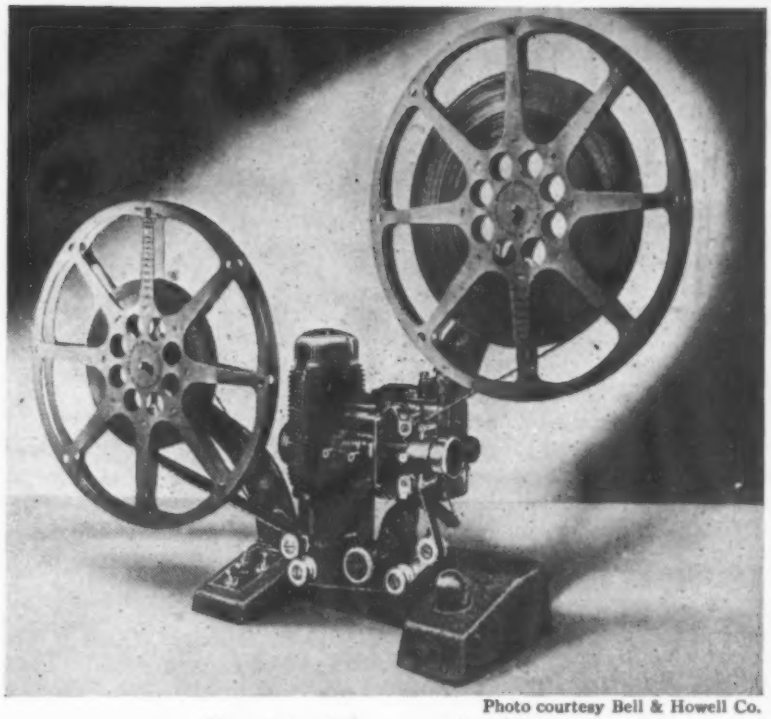


Photo courtesy Bell & Howell Co.

Showmaster, 16 mm. sound projector

C. Not Recommended

Kodascope Eight-33 (Eastman Kodak Co., Rochester 4, N.Y.) $70. f:2 coated lens. 500-watt bulb. Was less easy to thread than the other machines tested. Severe flicker at times, and shutter sometimes failed to open. Construction light and such as to suggest possibility of relatively short life. **1**

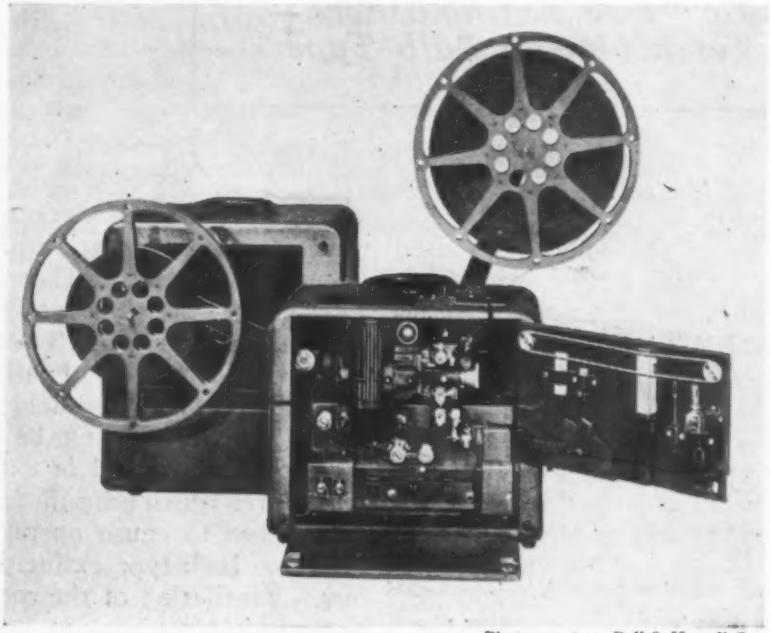


Photo courtesy Bell & Howell Co.

Filmosound 179, 16 mm. sound projector

Motion Picture Cameras

8 mm.

(For listing of other 8 mm. cameras, see December 1946 BULLETIN.)

C. Not Recommended

Cinemaster II, Model G-8 (Universal Camera Corp., 28 W. 23 St., New York 10) $96.75. With *Wollensak Univar Cine Anastigmat* f:1.9 coated lens of 13 mm. focal length, fixed focus. Interchangeable lens mount. Can be operated at 16, 24, and 32 frames per second. Motor runs 6 ft. of film per winding, but has undesirable feature of slowing down toward end of run without any definite stop. Had built-in exposure meter which could be turned and viewed through optical view-finder; calculating dial on side of camera. Definition of lens unsatisfactory. Mecha-

nism of relatively crude construction and operated with noticeable vibration. **2**

16 mm.

B. Intermediate

Victor, Model 3 (Victor Animatograph Corp., Davenport, Iowa) $99 less lens, $134.90 with f:2.5 *Wollensak* coated lens of 1-in. focal length. Fixed focus. Can be operated at 8, 16, 32, 64, and 80 frames per second. Takes standard 50-ft. or 100-ft. rolls of 16 mm. film. Finder had provision for correction of parallax (desirable). Plumb-bob device to show when camera is held level did not swing freely, thus not effective. Finder frame out of square with camera. Motor runs 22 ft. of film but slows down slightly near end of run. Lens definition satisfactory. Construction, judged mediocre.

16 mm. Sound Projectors

A. Recommended

Showmaster (Bell & Howell Co., 7100 McCormick Rd., Chicago 45) $312.95 including carrying case. Equipped with *Bell & Howell* coated f:1.6 lens of 25 mm. focal length. 1000- or 750-watt lamp. Takes reels up to 1600 ft. capacity. Quiet in operation and easy to thread. Projection was steady, definition good. Quality of sound good. Judged an excellent projector. **2**

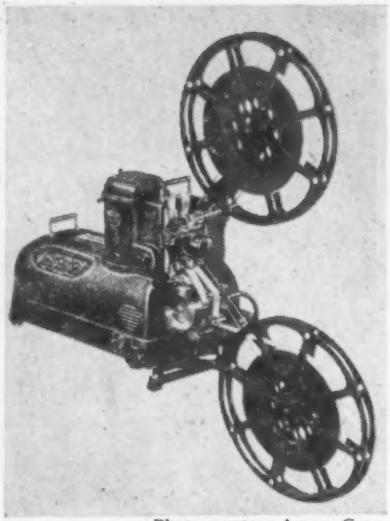


Photo courtesy Ampro Corp.

Amprosound "Premier-20," 16 mm. sound projector

Amprosound "Premier-20" (Ampro Corp., 2835 N. Western Ave., Chicago 18) $540 with coated f:1.6 projection lens of 2-in. focal length operated at either 24 frames (sound speed) or 16 frames (silent speed) per second. 750-watt lamp, 1000-watt lamp optional. Had provision for reverse operation and projection of a single frame as a still picture. Capacity, 2000 ft. of film. Quality of projection excellent and of sound good. **3**

Amprosound Century (Ampro Corp.) $460.55. Essentially the same as *"Premier-20"* except that it lacked a silent speed (16 frames per second) and hence could not be used for showing silent film, and had no provision for reverse operation or projection of single frames. Manufacturer advises that this model, though still available in stores, has recently been discontinued. **3**

Filmosound 179 (Bell & Howell Co.) $579 ($603 with *Cordomatic* reel). Equipped with *Bell & Howell* f:1.6 projection lens of 2-in. focal length. 1000-watt lamp (750-watt lamp optional). Operates at 24 frames (sound speed) or 16 frames (silent speed) per second. Had provision for reverse operation, and for projection of single frames. Capacity, 2000 ft. of film. *Cordomatic* reel winds speaker cord, taking up slack and locking in any desired position. Projection and sound quality judged good but not quite equivalent to that of the *Ampro* projectors tested. **3**

"Automatic" Fire Extinguishers—Carbon Tetrachloride Bulb Type

MANY SUBSCRIBERS have been interested in various glass bulb-type extinguishers that are supposed to put out a fire when released automatically by opening of a fusible link or similar action in case of fire in a home or storage building. With regard to extinguishers of this type, the Underwriters' Laboratories made a comment (Aug. 1937) which although brief, deals effectively with the claims made by the promoters and salesmen of such devices.

When the device was used on a Class A* fire (excelsior), "no practical extinguishing effect." With Class B fires (gasoline-saturated cotton waste) and a second type of Class B fire (gasoline in open pan or pail), tests failed to be convincing as to extinguishing effect. "Rooms having reasonable ventilation were not protected by automatic equipment of this type." The conclusion of the Underwriters from their tests was: "Dumping one or two pints of carbon tetrachloride upon the floors of closed rooms may not be relied upon to control or extinguish fires which are sufficiently intense to cause operation of these bulb-type extinguishers. Ventilation of the rooms reduces extinguishment possibilities."

*Class A fires are fires in ordinary combustible materials which primarily require the quenching and cooling effect of quantities of water; Class B fires are fires in flammable liquids, greases, etc., which require a blanketing effect in the extinguishing material.

How to Select a Fur Coat

By MAX BACHRACH

NORMALLY the fur industry offers over a hundred basic types of peltries, and there are many times that number of species and varieties. At present, there are about 68 different types of peltries in current use; the balance are missing or scarce because of war casualties, depletion due to overtrapping, or because they are out of fashion.

About half of the 68 peltries can be found in the popular-priced coat groups and the other half are used for trimmings and scarfs. Those which are in greatest demand are the Rabbit or Coney, Mouton-dyed Lamb, dyed Indian Lamb, Muskrat and Hudson Seal-dyed Muskrat, Persian Lamb and its species, Beaver, and dyed Squirrel.

Price vs. Wearing Quality

The price paid for a fur garment is not an indication of wearing qualities; examples of expensive furs with low serviceability are Chinchilla and Broadtail.

Generally, fur garments can be divided into three price groups which may be described as costly, popular-priced, and "cost-of-living items." It is therefore important for the purchaser to decide at the outset the purpose for which the fur coat is to be used, whether for appearance, warmth, or long wear. In all price groups, however, fur coats are considered to offer a longer life than other forms of outer wear, inasmuch as new peltries can be added for those worn out, and the garment can be restyled as occasion requires. Bear in mind, however, that it is wiser to purchase the better grade of a lower-priced fur than a cheaper grade of the more expensive type.

Where serviceability is required, certain factors must be looked for. It should be understood at the outset that there are two general types of peltries used in the fur industry, those obtained from fur-bearing animals and those from domestic animals. Fur-bearing animals have two types of hair covering, the guard hair and the finer, downier fur fibers. The guard hairs are the animal's raincoat and the fur fibers its overcoat. The other group consists of peltries from the domesticated animals, such as Lamb, Kid, Pony, etc., which have only wool or hair but no fur.

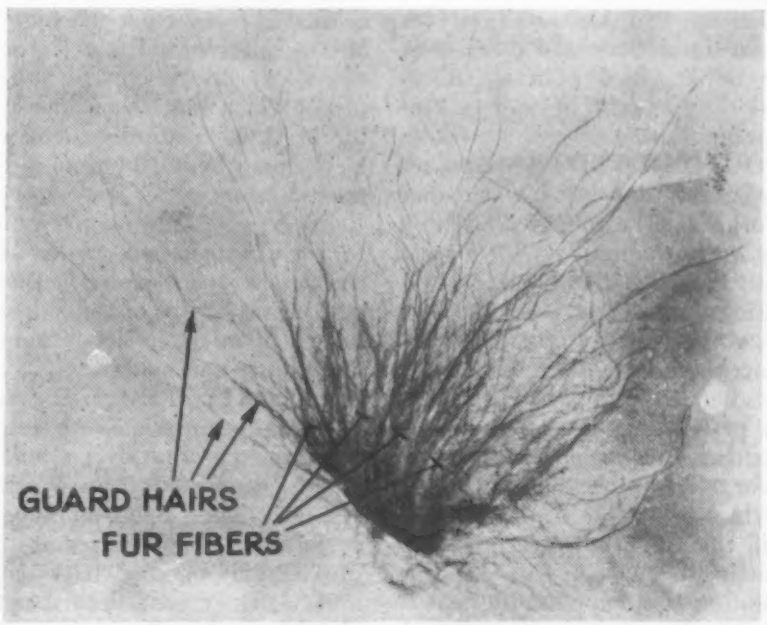
The quality of peltries of wild fur-bearers is governed by seasonal changes, and the best quality peltries are those taken in midwinter; those taken too early in the season have a skin and hair covering which is not fully grown, whereas those taken in the spring have started to shed their fur, hence have a flat appearance. Examination of the hair covering of winter-caught peltries will show a fluffiness and full coverage as contrasted with scanty guard hairs and a weak, thin-textured fur covering in the out-of-season peltries. There are exceptions: the three water rodents, Beaver, Muskrat, and Nutria are best in quality during the spring months.

Those domesticated animals which have wool generally give satisfactory wear if obtained from good breeding stock, but peltries with only a hair type of covering, such as Kidskin and Pony, do not wear well and hairs will break off and shed readily wherever friction occurs.

As to warmth, the fur-bearing peltries are better than the hair and wool types. The latter, however, with proper type of interlining can also provide warmth.

How to Examine Furs

CONEY; The terms "Coney" or "Rabbit" are both correct and may be used interchangeably under the Federal Trade Commission rules. Historically, the term "Coney" dates back to ancient Rome, and the word "Rabbit" came into use in the English language in Chaucer's time and



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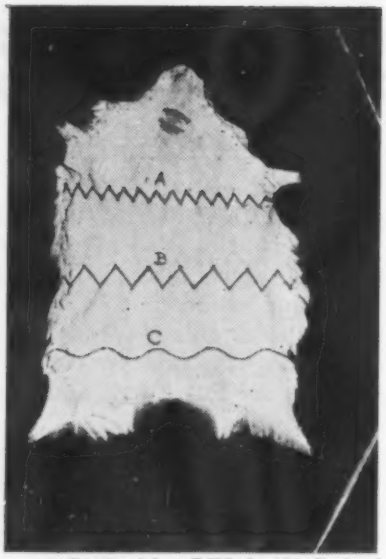
meant the young of the Coney.

The Australian market supplies the greatest quantities of rabbits to the fur industry and these are somewhat smaller than the European and American types. This fur came into prominence in America subsequent to World War I and is used to simulate more expensive furs, chiefly the Seal and Beaver; it is correctly sold as Seal-dyed Coney and Beaver-dyed Coney. The guard hairs are plucked out and the fur fibers sheared to even height, then dyed either seal-black or beaver-brown. "Lapin" (correctly, Lapin-dyed Coney) refers to those peltries which are sheared very low and usually dyed in pale shades. Some peltries are dyed with the long hair intact, in black or brown, to simulate longer-haired furs; these are generally peltries which have slight fur blemishes, too costly to remove, which are covered by the long guard hairs.

Blemishes in peltries taken out of season are caused when the fur grows too slowly in certain spots; this fur is too short, or else has been shed. The process of removing imperfect areas leaves a series of seams on the skin side, with slight ridges on the fur side.

The shorter-haired Coneys are stenciled to simulate Leopard and Ocelot; the larger European and American peltries are used for these simulations and dyers prefer unblemished peltries, otherwise the spots will be uneven after manufacture.

MOUTON-DYED LAMB: This fur has come into prominence since World War II although it has been known in the industry for a great many years. Lamb skins measuring from 6 to 9 square feet after processing are preferred. Since these are clothing wool sheep, it is necessary to process the wool to prevent matting in damp weather and with the friction of wear. This processing consists of giving the leather a tannage that will take high temperatures, permitting a synthetic polymerized solution to be applied by heat to the wool, to form a water-repellent coating; it is then sheared down to a proper even height. The formulas of the different processors vary and there are therefore differences in the finished product. It is important to look for skins in which there are no ridges, known as "ribby," for these ribby ridges will become more accentuated from wear; unevenness of the pile should also be observed, likewise patched pieces which have been inserted, for in these instances there will be a separation of the wool at the seams later on. Mouton-dyed Lamb coats should be given only to those cleaners who understand the use of proper cleaning methods, otherwise the tips of the hair will lose their water-repellency and become curly and matted.



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Methods Used in Joining Peltries

A—Small zig-zag joints for small-sized peltries.

B—Larger zig-zag joints for large-sized peltries.

C—Wavy joints for flat-haired peltries.

MUSKRAT: This prolific fur-bearer is obtained in North America, with somewhat over a million peltries imported from Western Russia. The American type is preferable. The peltries are cut into sections, making "back" coats and "flank" coats; the flanks are the sides and bellies of the peltry. Peltries from muskrats originating in the northern parts of the U. S. have a full growth of fur especially when taken in the late winter and early spring seasons. Those taken in the fall and in the late spring months do not have a full ample coverage of fur. Muskrat flanks do not wear as well as the back parts of the peltry, hence are offered and sold separately by reliable stores. The southern variety, which comes from the Delta of the Mississippi River, is somewhat flatter than the northern type but will give equally good wear if the peltries are seasonable. The Canadian type, although exceptionally well-furred, has a very thin skin and must be worn more cautiously to prevent ripping of the seams. The late winter and spring season Russian type are satisfactory, but the out-of-season peltries do not give good wearing service.

Muskrat garments are manufactured in separate sections consisting of the body, the sleeves, and the collar; each section is brush-dyed, returned to the manufacturer for nailing out to the correct size pattern, and then returned to the dyer for application of the center stripe which gives the garment the effect of mink or sable. The "mutation" or light shades which simulate Mutation Mink are obtained by first bleaching and then proceeding with the dyeing process. One of the old standbys in the fur industry is the seal-dyed muskrat, commonly known as Hudson Seal-dyed Muskrat, and because of the extensive processing operations required, only full-furred seasonable peltries should be used in which the leather is strong and can withstand this process.

INDIAN LAMB: These lambs come from the northwestern and western provinces of India and are incorrectly called "Bombay Lamb." They are usually dyed deep gray with white tips, obtained by chemical conversion. Peltries having soft wool are to be preferred; the harsh coarse-haired types will shed.

PERSIAN LAMB: There is still an unsettled controversy before the Federal Trade Commission as to the proper designation of those lambs which come from rug wool sheep and those which result from crossbreeding the rug wool with the clothing wool sheep. The consumer will do well to note whether the texture of the wool is soft or coarse; the coarser type of wool covering will not wear off at the friction spots as readily as will the soft wool type. The best grades have tightly knuckled curls, a uniform undulating pattern, and a deep natural luster.

General Features to Watch

The leather in fur garments should be soft and supple; where any rattle or paper-like condition is found, a garment will give less wear, often cracking and tearing.

A fur is also not of desirable appearance where the hair is normally straight and then is found to be curled over at the tips, and such a fur will not give good wear because the tips are dried out. (This is a condition termed "singey" in the fur industry.)

Explanation of Various Descriptive Terms

Most furs are dyed, and this can be determined by looking at the leather; natural leather is a pale cream color. Blowing into the fur will also show whether the leather has been colored or not, but in some furs only the leather is dyed and not the hair, as in Chinese Kidskins and in Grey Persians. This leather is usually dyed either a purple, a blue-grey, or a pale blue tint and these garments virtually are natural, for the leather has been colored only to give it a finished appearance.

The term "blending" refers to a process of darkening guard hairs to simulate a better grade of the same kind of fur without coloring the leather; synonymous terms are tipping, feathering, topping, shading, and beautifying, but all of these effect the same purpose.

"Electrifying" refers to a method of using heat and moisture to straighten out the hair covering and separate the individual fibers. This term, which is not too well understood by most consumers, is not used extensively today.

"Glazing" refers to the placing of a glaze on the fur by the use of moisture and sometimes warmth with ironing to straighten out the hairs and give them a luster. In time the surface of the hairs becomes scratched and dull and a resin or wax is transferred to the hairs from impregnated paper while ironing.

"Staying" is a term used to describe the application of cloth, usually a lightweight cotton fabric, to the leather side of peltries in those instances where, because of general inherent weakness, they would be likely to tear at the seams. This process is accomplished by sewing the fabric or coating it with a rubber adhesive. When the latter type is used, the fur cleaner must be very careful not to dissolve the rubber cement by too free use of cleaning solvent.

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Lengthening and Shortening Peltries

Left—"Letting-out" of peltries to lengthen them.
Right—"Letting-in" of peltries to shorten them.

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Staying

Cloth is sewn with a blind-stitch machine on leather side for strengthening and stitches do not appear on fur side.

"Leathering" refers to the sewing of strips of leather between strips of fur to thin out bushy fur peltries and also to give more area to the peltries. White Foxes, Blue Foxes, Silver Foxes, and similar types of peltries are usually the species to which this operation is applied.

"Let-out" is a term which refers to a method of manufacture by which peltries are made longer and narrower and is accomplished by a series of chevron-like cuts, each one of which is rejoined at a lower angle. The effect produced is a long narrow appearance, which gives a graceful line to each individual peltry.

"Skin-on-skin" is the usual method used of sewing skins next to each other in practically their original form, after the unusable portions are removed.

"Split peltries." When only the backs of peltries are used they can be split down the center and each half placed below the preceding one, which will also give the effect of long and narrow rows.

"Shedding." This is caused by a drying out of the hairs brought about by keeping the furs in too

warm and dry a closet, attic, or other storage place. Furs of members of the Cat family are particularly susceptible to shedding. A bowl of water with a rubber sponge placed in the closet to furnish some moisture may be a helpful preventative.

Care of Fur Coats

There are 10 excellent rules to follow if a fur coat is to give good wearing service:

1. Keep fur garments on hangers when not in use.

2. When wet or damp, first shake them out and then hang them carefully in a cool flow of air. Do not brush or comb wet furs.

3. Furs, wet or dry, should never be placed near heat nor in contact with a heated surface. Brush dry furs occasionally; shake them gently and often.

4. Avoid placing any insecticides or moth preventives in direct contact with furs.

5. Keep your closets humidified in dry weather; a bowl of water containing a rubber or synthetic sponge will serve.

6. Friction will rub off the fur and hair. To protect fur garments from this kind of wear, care should be exercised in carrying packages, purses, next to a fur garment.

7. It helps prevent rips to keep fur garments buttoned when you stand, especially in crowded places. Open up your fur garment when you sit down, for the same reason.

8. During warm weather keep furs in storage to prevent leather and hair from drying out, also for protection against moths.

9. Small rips should be repaired promptly; later they may become expensive. Have your furs glazed several times a year, and thoroughly cleaned once a year.

10. Permit only reliable concerns of reputation and standing to take care of your furs.

Besides this, remember to buy fur coats from reliable retailers. The Federal Trade Commission and the Better Business Bureaus are doing all they can to protect the consumer but they cannot act until after consumers have been wronged and entered complaints, so it is evident that the chief responsibility must rest on the person buying the coat.

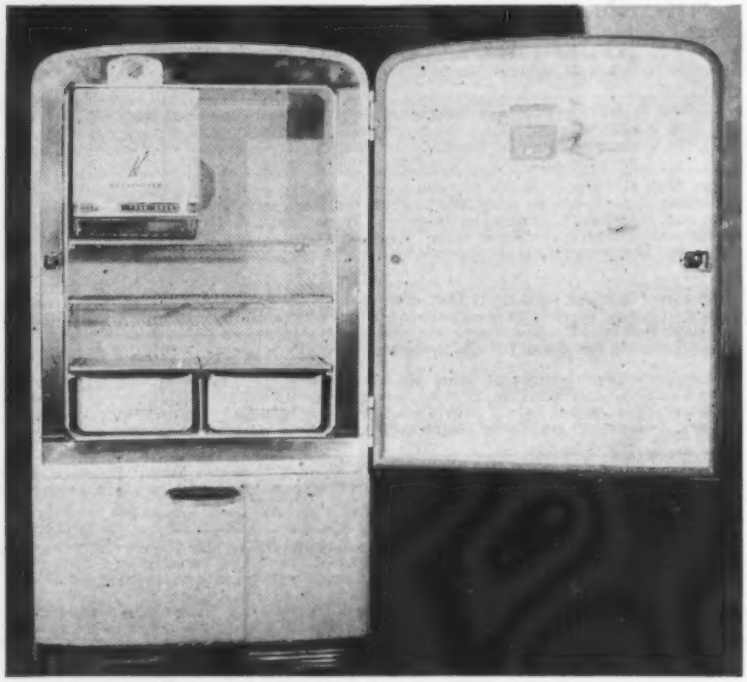
1947 Fur Coats, Jackets, and Scarfs

Fur	*Serviceability*	*Characteristics*
Beaver	Good	Dark brown fur remaining after copper colored guard hairs are plucked out. Shearing tips of fur (Sheared Beaver) reduces possibility of matting. Finest dark blue-brown from eastern Quebec, brownish tone from western U.S. and Canada. Pale-colored from Rocky Mountains region. Flanks are sheared lower than center backs to give silvery contrast. Large skins make 5-stripe (counting center back) coats; small size makes light weight 9- and 11-stripe garments which bring highest price.
Broadtail-Processed Lamb		See Lamb, South American
Caracul-dyed Lamb	Fair to Low	Chinese type preferred over Russian (which is heavy-pelted). Northern China produces best patterns with luster; Chekiang Province produces largest quantities. Are naturally white and can be dyed in grey, brown, and black. Best qualities have flat moire pattern. Cheaper qualities, long wavy curls.
Coney		See Rabbit
Fox, Blue and White	Fair	These are Arctic Foxes, the blue being a color phase coming from more moderate climes. Dense bushy fur with thin leather. Blue Foxes from Alaska have brown to reddish brown color; from Greenland, a silvery pale brown. White Foxes are dyed to simulate Lynx and are called Lynx-dyed White Foxes.
Fox, Red	Fair to Low	Best silky quality with bright orange-red color comes from Alaska and Kamchatka, Siberia. Coarse-haired types from central U.S. and central Europe. Are dyed black, brown, and Blue Fox simulation.
Fox, Silver, Cross and Black	Fair	These are color phases of Red Fox. Most Silver Foxes are ranch-raised. Quality determined by brightness of silvery hairs and density of fur. Most desirable type is full silvery. Others with black neck and mane extending downward into body are classified as ¾ silver, ½ silver, and ¼ silver.
Fox, Platinum Silver (Platina); Other mutations	Fair to Low	These are all ranch-raised; are mutations of original Silver Fox. Color is pale grey with white silvery hairs. Mutation types most in demand are "white face" and "ring neck." Best qualities are pale silvery blue-grey and densely furred.
Kidskin, Chinese	Low	Long wavy-haired, natural grey. Shorter-haired most desirable. Hairs have tendency to break off wherever friction is applied.
Kidskin, Arabian and African	Low	Are naturally black but are dyed to brighten natural off shade. Desirable qualities have flat moire pattern. Poorer grades have rough loose curl, coarse-textured hair which has tendency to break off wherever friction is applied.
Lamb, Indian	Fair to Low	Incorrectly called "Bombay Lamb"; most come from Multan and Delhi. Natural color white are dyed grey with white tips to simulate Grey Persian and Krimmer. Best qualities have flat moire appearance.
Lamb, Mouton-dyed	Good	Natural white shearling lambs from South Africa, South America, and North America. Mostly dyed to simulate Beaver and Nutria, and are processed with plastic chemicals to prevent matting. Poorer qualities are thinly furred and have ribs and patchy seams.

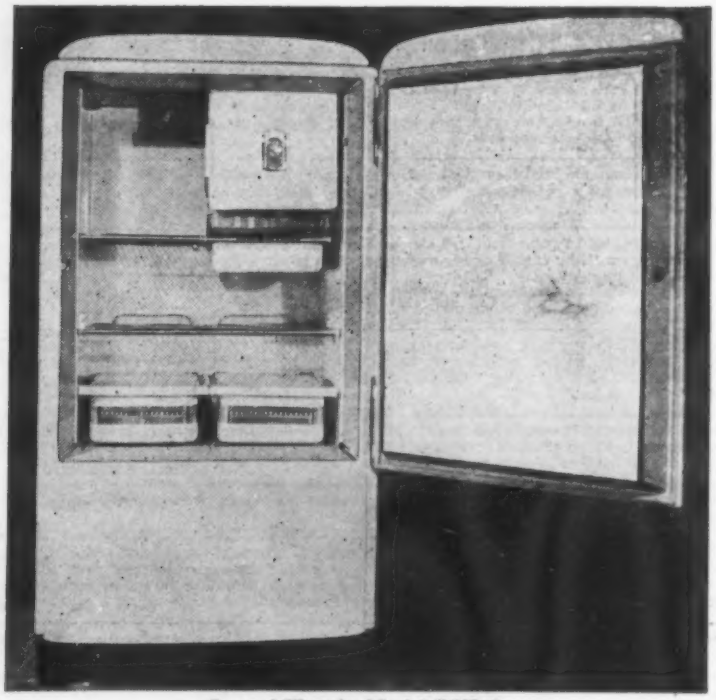
Fur	*Serviceability*	*Characteristics*
Lamb, Persian, Cross Persian, Broadtails	Good to Fair	Best qualities from Iranian Plateau, known as Bokhara (U.S.S.R.) and Afghanistan. Natural colors black, brown, and grey. Black are dyed to give richer tone. Most desirable have tight knuckle curl, fairly coarse texture, and unbroken pattern, with deep natural luster. Cross breeds are obtained from Southwest Africa, United States, Bessarabia (U.S.S.R.), and Asia Minor; these have poor luster as a rule (although a few have good luster), soft texture with interrupted curl-patterns and open loose curls; soft wool types rub easily wherever friction is applied. Broadtail is the unborn lamb with very little hair but fine moire pattern, and is very perishable.
Lamb, South American	Fair	A breed of Lincoln Lamb raised in South America, with small segregated curls. When sheared low is known as Broadtail-processed Lamb, also sold as Tingona brand; unsheared are dyed grey with white tips and used as cloth coat linings, trimmings, coats, and jackets.
Leopard	Fair to Low	Best qualities are dwarf type from Somaliland. Most desirable appearance is pale tan background with small dark well-formed rosettes. Reddish brown with heavy leather and large spots least desirable.
Marmot	Fair to Low	Best qualities from sandy regions of Mongolia and Siberia. Silky-haired most desirable. Used to simulate Mink, and properly known as Mink-dyed Marmot.
Marten, Baum, Stone, Jap, Hudson Bay (Canadian)	Fair	Soft silky types most desirable. Pale skins most popular at present. Stone and Baum Marten come from Russia, central and southern Europe, and Himalaya Mts. The Russian and Himalayan types have pale colors. Jap Marten are usually dyed and blended. Hudson Bay or Canadian are usually blended.
Mink, American	Good	Wild type comes from all parts of North America and varies with section of origin. Eastern Canada and northwestern United States types are silky, short-haired, and dark blue-brown in color. Mississippi Valley Mink are large size, long-haired, and brown in color. From West-Coast Canada, and Alaska are short-haired, thinly-furred and medium brown in color. From southern United States are coarse, straw-like, and pale brown in color. The poorer natural colors are blended by applying dyestuffs to the tips of hair to make darker. Ranch Mink are raised in cooler climates of United States and Canada. Color ranges from brown to extra dark black-brown. Quality depends upon individual ranch production; three generally recognized types are Eastern type, Yukón type and Minnesota type, the latter having long coarse guard hair. The paws and pieces cut away in manufacturing are assembled into garments, known as Mink Paw and Mink Pieced coats. Mutation Mink is latest development and is the result of breeding sport types intensively. Comes in various shades known as Koh-i-nur, Silverblu, Blufrost, Ebony Blu, and White. Koh-i-nur is a type with white fur and black-brown tipped guard hairs. Silverblu has a pale blue-beige color, and Blufrost is similar with white-tipped hairs; latest types are Ebony Blu and Pure White.
Mink, Chinese and Japanese	Fair	Naturally yellow brown in color, are dyed and blended to simulate American Mink. Japanese silkier than Chinese. Best qualities are silky and full-furred. Pieces cut away in manufacturing are made into garments known as Paw Coats and Pieced Coats.
Muskrat	Good to Fair	Two general types — Northern and Southern. Northern is silky and full-furred; Southern flatter and coarser-haired with thicker leather. Dyed and blended to simulate Mink. Also bleached and dyed to simulate Mutation Mink. Manufactured into back coats and flank coats. Belly coats called "Natural Silver." Natural Black Muskrats are a color phase of northern brown, are not dyed. Best qualities trapped in springtime and have full coverage of fur and hair. Hudson Seal-dyed Muskrats are better qualities of northern type, plucked and sheared to simulate black-dyed Alaska Sealskin.
Nutria	Fair	Native of South America, although a few are ranched in the United States. The coarse guard hairs are plucked, leaving a soft, short fur resembling Beaver but lighter in color; only the sides and bellies are used. Best qualities have compact growth of fur and fresh brown color tone. Off-color and thinly-furred peltries not as desirable and less expensive.
Ocelot	Fair to Low	Native of eastern South America and Mexico. Have short guard hairs and scant fur, giving flat appearance. Best types have pale fresh brown background and sharply defined elongated markings, dark brown centers. Reddish brown and poorly marked skins not as desirable.
Opossum, American	Fair	Coarse hair and fur; North American types have silvery hair with creamy white fur, usually dyed to simulate Skunk, sometimes Fitch; also used natural. Best qualities should be full-furred long straight hair. Inferior grades have kinky hair. South American type has natural brownish cast. When dyed may be recognized by the forked or flagged tip on guard hair.
Opossum, Australian	Fair to Low	Native to Australia, Tasmania, and New Zealand. Best grades have steel blue hair with compact growth of brown-grey fur. Undesirable peltries are brownish to reddish brown in color and are dyed a bluish tint, sold as "tipped."
Rabbit	Fair to Low	Australian and New Zealand types about 2/3 size of European and United States types. Used to simulate Beaver, Seal, Mink, Chinchilla, etc. Long-haired types used to simulate long-haired furs. Best quality are full-furred with few, if any, seams in middle of peltry. Thick-pelted are known as "bucks," thin-pelted as "softs" and "does." Thin-pelted skins are preferably backed with a fabric (called "staying"). Natural grey Rabbits with white flecks used to simulate Chinchilla.
Raccoon, American	Good	Longer-haired, deep pile bushy type used for trimmings, called "Heavy Raccoon." Shorter-haired, used for coats, should be compactly furred and silky for best qualities. Sometimes tipped with dyestuffs to remove reddish cast in neck and shoulder areas. Guard hairs are plucked leaving fur which is sheared and dyed to simulate Beaver.
Seal, Fur Alaska Sealskin and others	Good	Controlled by U.S. Government and dyed for it in St. Louis. Colors black, Matara brown, and Safari brown. Dyed after stiff guard hairs are plucked leaving soft silky fur. Best grades have even pile and dense coverage. Government stamp on back of each skin. Similar types but not as well furred come from South Africa.
Seal, Hair	Fair	Short, bristly hair with no fur, lying flat; color is shadings of grey from deep in center to pale on sides, or may be spotted. Used natural or dyed brown and grey.
Skunk	Good	Deep black long hair with dense growth of fur in best qualities. Natural types have white stripes removed. Other types are dyed to cover broad white stripes. White stripes are assembled and dyed black, correctly called Pieced Skunk. Sometimes Skunk is bleached and dyed to simulate Baum Marten and Blue Fox. South American types are brown, and incorrectly called "Zorina."
Squirrel	Fair to Low	Best types from mid-Siberia have natural steel grey color with no reddish cast; dyed to simulate Mink and Sable. Poorer grades come from northern Europe and are flat in appearance.
Spotted Cat	Low	Two varieties obtained from South America, short-haired and long-haired. Short-haired type is flat with distinct markings which simulate Leopard and Ocelot. Some types have round spots and are sheared to give a short-haired flat appearance. All types have tendency to break off and shed when hair becomes dried out.

A Test of Six Refrigerators

TODAY'S electric refrigerators are priced at approximately 75% above the figure at which prewar models were sold. Unfortunately there has not come along with this price increase, which is characteristic of electrical appliances generally, any significant improvement in quality or performance. The refrigerators tested by CR were all found to have ample refrigerating capacity (ability to maintain proper temperatures inside the boxes with a high temperature outside) even when the room temperature went up to 110°F. Another very important item of information in CR's tests is the cost of operation of the various makes, which, as is shown in the accompanying table, varied over the considerable range of approximately 61c to $1.06 per month for the standard type of electric refrigerator. Assuming a useful life of about 10 years, the difference in cost of operation between the most and least economical boxes would amount to the not inconsiderable sum of about $60 for the same amount of refrigerated space. (Electrical energy cost assumed to be 3½c per kilowatt-hour, which is about the average figure for the United States. The difference would, of course, be even more substantial in districts where costs per kilowatt-hour are higher.)



Kelvinator, Model CD-7-R



General Electric, Model BH7-A

One of the six refrigerators tested, the *Admiral Dual-Temp*, was a combination refrigerator and freezer; this had a storage capacity in the refrigerator chamber of 7 cu. ft. and a capacity in the freezer chamber of 2 cu. ft. This type of refrigeration equipment has its advantages for persons who rent a freezer locker to furnish primary or quantity storage, for it permits them to keep at home a considerable quantity of frozen foods from their locker and so to avoid frequent trips to the locker plant. CR's test indicated that the cost of operation of combination freezers and refrigerators may be considerably higher than for a refrigerator alone, for in the model tested, with controls set at the position most favorable to economy while still assuring safe storage (8°F in freezer, 43.4°F in the regular food-storage compart-

ment), cost of operation was slightly more than double that of a simple refrigerator of the same make. The difference would be considerably greater if foods were inserted for freezing with the freezer control set at the coldest setting; the motor would run continuously at a cost of 12c per day until the contents of freezer compartment were frozen and the controls could be changed from the coldest setting to a warmer one.

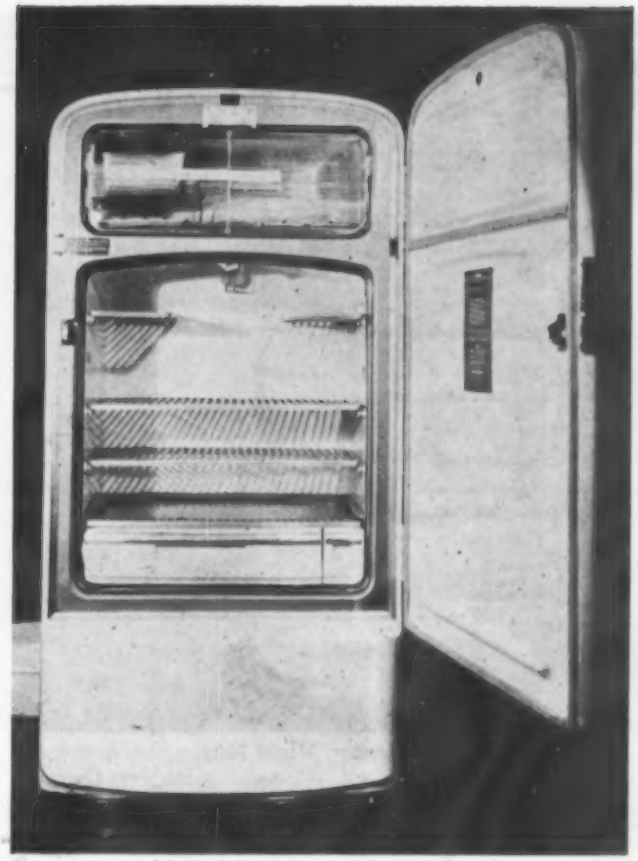
Methods of Test

Tests were made following the standard test procedure of the American Standards Association (more fully described in CONSUMERS' RESEARCH BULLETIN, September 1946).

After the refrigerators had been allowed to stand in a heated room at 90°F for at least 48 hours with their doors open, the time and energy required to lower the temperatures to a stable value were determined, with the controls set to give normal operating temperatures. The temperatures attained in the box were also measured. These tests were repeated with room temperature maintained at 110°F and controls set to give an average temperature inside the boxes of approximately 46°F.

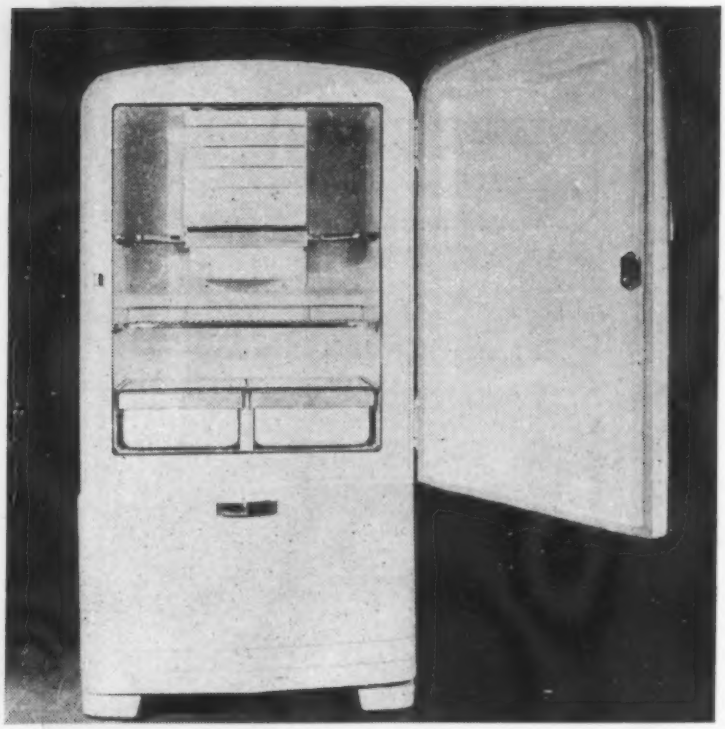
After stable temperature conditions were reached, no-load performance data under steady conditions were obtained with several settings of the control dial, the temperature in the test room being maintained in one case at 90°F and in another at 110°F.

By experience it has been learned that the cost of operating a refrigerator loaded with food and used under average conditions in a home will often be close to the operating cost determined under test conditions in a room held accurately and constantly at 80°F. Operating costs at 80°F have been approximately determined by calculation and are given in the listings. If there is a considerable food load, which implies putting into the refrigerator from time to time foods which are warm



Admiral Dual-Temp, Model TD-946

MW De Luxe, Model 696



Monitor, Model 746

or at room temperature, the performance of the refrigerator *at a room temperature of 90°* will more accurately approximate actual operating cost.

In the ice-making tests, the time and energy required to make the regular complement of ice cubes were measured. It is interesting to note that when the controls of the refrigerator were set at "fast freeze" with the room temperature at 90°, insertion of the ice-cube trays filled with water at the same temperature as the room raised the 43° temperature of the food storage space within the refrigerators by an amount which ranged from 5° to 13° for a period of one hour. At the fast-freeze setting, the minimum temperature in the food compartment of the *Monitor*, *General Electric*, and *Coldspot* dropped below 32° for a period of one hour (which would mean that some foods and beverages might freeze). To permit judgment of electrical safety, standard proof-voltage tests and standard tests for leakage current were made on the refrigerators as received and again after 16 hours at a temperature of 85°, relative humidity of 85%, and again after operating continuously for one hour with the door open. All refrigerators passed this last series of tests satisfactorily.

The maximum and minimum temperatures given in the listings under the ice-making tests represent temperatures which were maintained for at least one hour (as a *momentary* or short-period high or low temperature would have no significant effect on the food stored).

All of the refrigerators were satisfactorily quiet in operation.

A. Recommended

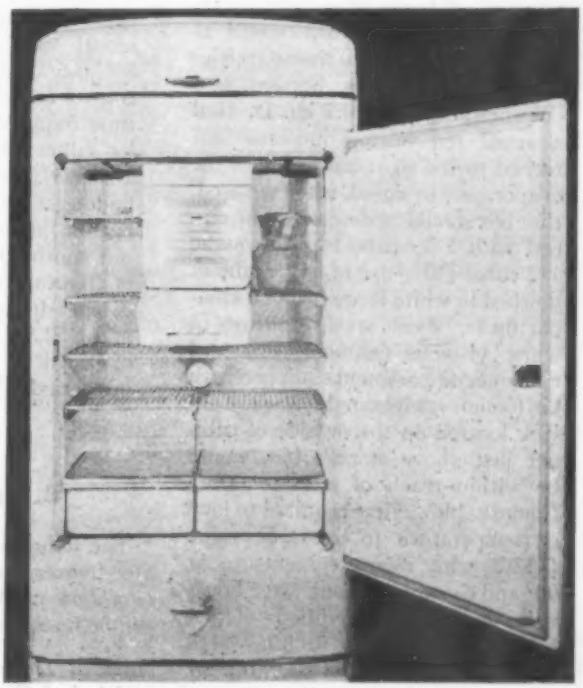
MW De Luxe, Model 696 (Montgomery Ward & Co., Chicago) $196.95, plus freight, mail order; $219.95 in retail stores. Rated capacity, 7 cu. ft. (actual, 7.1 cu. ft.). Rated shelf area 15.5 sq. ft. (actual, 15 sq. ft.). Compressor, sealed, reciprocating type. Condenser, finned-tube type, mounted horizontally below compressor and cooled by natural draft. Refrigerant, *Freon 12*, flow of which was controlled by capillary tube. Equipped with 2 full-sized wire shelves, a smaller shelf on each side of the evaporator, and a full-sized bottom shelf of plate glass, in two halves, each of which formed the cover of a vitreous-enameled steel drawer marked "Food Freshener." One of the wire shelves is divided into two parts each of which is of the sliding type (desirable) and designed so that one-, two-, or three-quarters of the whole shelf may be slid back to permit taller articles to be stored on the shelf below. A shallow glass drip tray was also provided and below this a glass drawer marked "Food Froster." Evaporator, located at top, center of compartment, refrigerated at the bottom, sides, and under top shelf. A second, non-refrigerated, shelf is removable leaving a space 6½ in. high; capacity of evaporator, 0.6 cu. ft. Equipped with 3 ice-cube trays to make 64 cubes (7 lb.) of ice. Cabinet finished in white lacquer; food compartment of sheet steel, finished in white vitreous enamel; inner surface of door of a plastic material polished to resemble vitreous enamel. Front of machine compartment equipped with bin for non-refrigerated storage. Time required to lower temperature to a stable value (43.3°) with room temperature at 90°, control set at *N*, 8½ hours with energy consumption of 0.56 kwhr., corresponding to about 2c worth of electricity. Cost of operation at 90° room temperature with an average temperature of 43° inside box, $1.15 per month. This would correspond to approximately 87c per month with a room temperature of 80° (see test). With temperature control set at *6C* (coldest position), time required to freeze 7 lb. of ice cubes: tray 1 at top and tray 3 at bottom, about 2 hours; tray 2 at middle center, about 4.8 hours. Motor ran continuously during the period of freezing cubes. Temperature in cabinet during freezing period, maximum 50.5°, minimum 32°. Cost of electricity during freezing period, 2.8c. **1**

Coldspot Four Star, Model 106.46427 (Sears, Roebuck & Co.) $222.50. Rated capacity, 7.6 cu. ft. (actual, 7.8 cu. ft.). Rated shelf area, 16.6 sq. ft. (actual, 16.3 sq. ft.). Compressor, sealed. Condenser, finned-tube type cooled by a small auxiliary fan. Complete refrigeration unit is mounted on a thermally insulated platform that forms the top part of the food-storage compartment. Refrigerant, *Freon 12*. Equipped with 3 small wire shelves, 2 on one side of the evaporator and 1 on the

other. Two full-sized wire shelves and a plate-glass shelf in two halves formed the covers of two vitreous-enameled vegetable drawers. A shallow drip tray is supplied below the evaporator; below this a vitreous-enameled meat drawer. Evaporator is refrigerated on the sides and bottom and has one refrigerated shelf near the top, capacity 0.5 cu. ft. The unrefrigerated shelf is removable to give a larger space for storing frozen foods. Equipped with 5 ice-cube trays, to make 95 cubes (8 lb.) of ice. All ice-cube trays equipped with levers for loosening frozen trays from shelves. Outer surface of cabinet finished in white lacquer. Inner surface of food compartment of sheet steel finished in white vitreous enamel. Bottom of food compartment is about 12 in. from floor and in this space a drawer is provided about 6 in. deep for non-refrigerated storage. Time required to lower average temperature to a stable value (42.8°) with room temperature at 90° and controls set at about *4*, 7½ hours, with energy consumption of 0.48 kwhr., corresponding to about 1.7c worth of electricity. Cost of operation at 90° room temperature with an average temperature of 43° inside the box, 97c per month. This would correspond to approximately 73c per month with an 80° room temperature (see text). With temperature control set at *9* (the coldest position), time required to freeze ice cubes: trays 1 and 2 at top, about 2.5 hours; trays 3 and 4 at middle, about 5 hours; and tray 5 at bottom, 1.8 hours. Total of 8 lb. of ice. Motor ran 83% of the time during the freezing period. Highest temperature in cabinet during ice-cube freezing period, maximum 48.5°, minimum 30.5°. Cost of electricity consumed during freezing period, 2.6c. **2**

General Electric, Model BH7-A (General Electric Co., Bridgeport, Conn.) $235.75. Rated capacity, 7 cu. ft. (actual, 7.2 cu. ft.). Rated shelf area, 13.4 sq. ft. (actual, 13.7 sq. ft.). Compressor, sealed type. Condenser, finned-tube type, mounted at front of compartment and air-cooled by small auxiliary fan. Refrigerant, *Freon 12*, flow of which is controlled by a capillary tube. Equipped with 2 full-sized shelves and 1 half-sized shelf; middle shelf of sliding type (desirable), bottom shelf of plate glass in two halves, each of which serves as the cover of a vitreous-enameled drawer marked "Fruits-Vegetables." A vitreous-enameled drawer marked "Cold Storage" was provided below the drip tray. Evaporator, storage capacity 0.6 cu. ft., located upper right corner of compartment, refrigerated at bottom, sides, and under the one shelf, the latter located near the top leaving a larger compartment (about 5 in. high) at the bottom of the evaporator. Evaporator equipped with a "*Tel-a-Frost*" indicator, which, when obscured by frost, is a signal that box should be defrosted. Four ice-cube trays, to make 80 cubes (7 lb.) of ice. Cabinet finished in white lacquer except for a black base 4½ in. high; food compartment, steel, finished in white vitreous enamel. Lacked a bin for non-refrigerated storage. Time required to lower temperature to a stable value (44°) with room temperature at 90° and control set at *D* (warmest setting), 8 hours, with energy consumption of 0.36 kwhr., corresponding to 1.26c worth of electricity. Cost of operation at 90° room temperature with an average temperature of 43° inside box, 81c per month. This would correspond to approximately 61c per month with a room temperature of 80° (see text). With temperature control set at *4* (coldest position), time required to freeze 7 lb. of ice cubes: trays 1 and 2 at top, about 2½ hours; trays 3 and 4 at bottom, about 2 hours. The motor ran continuously during the period of freezing cubes. Temperature in cabinet during freezing period, maximum 56° (too high), minimum 30.5°. Cost of electricity consumed during freezing period, 1.37c. **2**

Kelvinator, Model CD-7-R (Nash-Kelvinator Corp., Detroit 32) $240. Rated capacity, 6.8 cu. ft. (actual, 6.8 cu. ft.). Rated shelf area, 13.1 sq. ft. (actual, 13 sq. ft.). Compressor, sealed, reciprocating type. Condenser, finned-tube type, mounted at a slight angle below compressor unit and cooled by natural draft. Refrigerant, *Freon 12*. Equipped with 3 full-sized shelves, bottom one of glass, in two halves, others of tinned wire. Two sections of middle shelf could be folded down to provide a variable shelf arrangement. Two drawers or "crispers" of vitreous-enameled steel were located below glass shelf. Evaporator, designated "Frozen Food Chest," located at top left-hand side of compartment, refrigerated at the bottom, sides, and under one shelf; capacity, 0.8 cu. ft. A glass drip tray 1½ in. deep could also be used for storing meats. Equipped with 4 ice-cube trays to make 64 cubes (7 lb.) of ice. Cabinet finished in white lacquer; food compartment, sheet steel, finished in white vitreous enamel; inner surface of door of plastic material finished to resemble vitreous enamel. Front of machine compartment equipped with bin for non-refrigerated storage. Time required to lower temperature to a stable value (40.5°) with room temperature at 90° and control at about *2C*, 8 hours with energy consumption of 0.48 kwhr., corresponding to about 1.7c worth of electricity. Cost of operation at 90° room temperature with an average temperature of 43° inside box, $1 per month. This



Coldspot Four Star, Model 106.46427

would correspond to approximately 75c per month with a room temperature of 80° (see text). With temperature control set at *6C* (coldest position), time required to freeze 7 lb. of ice cubes: tray 1 at top center, 2.9 hours; tray 2 at middle center, 7 hours; tray 3 at bottom left, 3 hours; tray 4 at bottom right, 2 hours. Running time of motor during freezing period, 75%. Temperature in cabinet during freezing period, maximum 48°, minimum 33.50°. Cost of electricity consumed durin freezing period, 2.8c. **2**

Leonard DL-7 (Leonard Div. of Nash-Kelvinator Corp., Detroit 32) $240. Identical with *Kelvinator*, Model CD-7-R, except for trim. **2**

Monitor, Model 746 (Monitor Equipment Corp., Riverdale-on-Hudson, New York 34) $250. Rated capacity, not given (actual, 7.3 cu. ft.). Rated shelf area, not given (actual, 12.9 sq. ft.). Compressor, sealed. Condenser, finned-tube type, mounted horizontally below compressor and cooled by natural draft. Refrigerant, *Freon 12*, controlled by capillary tube. Equipped with 2 small wire shelves (one each side of the evaporator), one full-sized sliding wire shelf, and one full-sized bottom shelf of plate glass in two halves, each of which forms the cover of a vitreous-enameled drawer. The sliding wire shelf was judged very convenient, permitting easy removal of foods from rear of refrigerator. Evaporator, located at top center of compartment, refrigerated at both sides, bottom, and one shelf; capacity, 0.7 cu. ft. Had a small red button indicator attached to the right-hand side of the evaporator, to signal, when covered, that box should be defrosted. Equipped with 5 ice-cube trays to make 112 cubes (10½ lb.) of ice. Cabinet finished in white lacquer; food compartment, sheet steel, finished in white vitreous enamel. Front of machine compartment equipped with bin for non-refrigerated storage. Control, located on the outside of cabinet just above storage bin, would be within reach of small children (undesirable). Time required to lower temperature to a stable value (43.9°) with room temperature at 90° and control at about *4*, 6.5 hours with energy consumption of 0.4 kwhr., corresponding to 1.4c worth of electricity. Cost of operation at 90° room temperature with an average temperature of 43° inside box, $1.04 per month. This would correspond to approximately 78c per month with a room temperature of 80° (see text). With temperature control set at *10* (coldest position), time required to freeze 10½ lb. of ice cubes: trays 1 and 2 at top, about 3¾ hours; trays 3 and 4 at middle, about 6½ hours; tray 5 at bottom, about 3.2 hours. The motor ran continuously during the period of freezing cubes. Temperature in cabinet during freezing period, maximum 52.5°, minimum 28.5°. Cost of electricity consumed during freezing period, 3½c. **2**

SUMMARY OF TEST D[ATAIN]

Refrigerators Not Loaded (Food Not Taken[ut in] Room Temperatures[anc]

	1 Average temperature inside box (corrected to standard conditions) At room temperature of: 90°F	2 110°F	3 Percent Running time of motor at 90°F	4 at 110°F
General Electric BH7-A	43°	46°	20.7	43.0
Admiral CS-746A[1]	43°	46°	17.3	42.5
Coldspot Four Star	43°	46°	22.5	40.0
Kelvinator CD-7-R	43°	46°	24.0	52.0
Monitor 746	43°	46°	23.5	48.0
MW De Luxe 696	43°	46°	25.5	48.5
Gibson F-666[1]	43°	46°	29.7	—

Combination Refriger[Freeze]

Col. 1 and 2 ap[erator]

Admiral Dual-Temp TD-946	43.4°	44.1°	38.6	84.6
" " " "	36.6°	—	42.3	—
" " " "	37.2°	—	100	—
" " " "	43°	—	100	—

[1] Brought forward from previous test of refrigerators tested post-war by CR, for comparison purposes.
[2] Calculated (see text).

B. Intermediate

The following combination refrigerator-freezer is tentatively rated *B. Intermediate* until other boxes of its type can be tested for comparison purposes.

Admiral Dual-Temp, Model TD-946 (Admiral Corp., 3800 Cortland St., Chicago 47) $430. Rated capacity of freezer, 2 cu. ft. (actual, 2 cu. ft.). Non-freezing compartment, 7 cu. ft. (actual, 7 cu. ft.). Rated shelf area, 16.4 sq. ft. (actual, 16.9 sq. ft., consisting of 3.6 sq. ft. in freezer and 13.3 sq. ft. in non-freezing compartment). Compressor, sealed, reciprocating type. Condenser, large finned-tube type, mounted diagonally at the rear of the machine compartment and cooled by natural circulation of air, a duct on rear of cabinet producing a chimney effect. Refrigerant, *Freon 12*, controlled by capillary tube. The lower or food compartment was equipped with 3 full-sized and 2 narrow shelves, lower shelf of glass with perforated metal strips along front and rear edges to permit air circulation to a large vitreous-enameled drawer suspended below the shelf. The other shelves were of parallel aluminum rods. Compartment was cooled by coils attached to the outer surface of the walls. A small drip tray was provided to catch any condensation

TAINED ON REFRIGERATORS.

ut in). Except for Test Data in Column 5, and 110°F.

	5	6	7	8	9	10		
	Time for making maximum quantity of ice cubes, hours at 90°F	Energy, kilowatt-hours per day at		Cost of operation per month at 3½c per kwhr. at				
		90°F	110°F	80°F[2]	90°F	110°F		
	2.4 (7 lb.)	0.77	1.47	$0.61	$0.81	$1.54		
	3.6 (8 lb.)	0.80	1.74	0.63	0.84	1.83		
	4.9 (8 lb.)	0.92	1.72	0.73	0.97	1.80		
	7.0 (7 lb.)	0.96	1.85	0.75	1.00	1.94		
	6.9 (10.5 lb.)	0.99	1.83	0.78	1.04	1.92		
	4.8 (7 lb.)	1.10	2.00	0.87	1.15	2.10		
	2.6 (6 lb.)	1.34	2.57	1.06	1.41	2.70		
Freezer **erator section only.**							**Control Settings** Food Storage	Food Freezer
	—	1.67	3.46	$1.31	$1.75	$3.63	4W	N
	—	1.79	—	1.41	1.88	—	N	N
	—	3.25	—	2.56	3.41	—	N	6C
	4.7 (7.9 lb.)	—	—	2.78	3.72	—	4W	6C

dripping from the walls. The upper compartment (freezing space) corresponds to the evaporator of a standard refrigerator, cooling coils being secured to the outer surfaces of the compartment liner; a small wire shelf was provided. Equipped with 3 ice-cube trays to make 7.9 lb. of ice cubes, and a large ice-storage tray with a capacity of 10 lb. of water. Temperature in each compartment was controlled by its own thermostat. A "Sterilamp," giving off ultraviolet rays and some ozone, claimed by manufacturer to be effective in killing air-borne bacteria and reducing odors, was also provided. *Note:* The effect of this lamp was not determined during this test, but we expect to discuss such lamps in a forthcoming article. Cabinet exterior finished in *Dupont Dulux*; interior of both compartments of sheet steel with vitreous-enamel finish. An insulated wall separates the two compartments. Inner surface of door of a plastic finished to resemble white vitreous enamel. Front of machine compartment equipped with bin for non-refrigerated storage. Time required to lower food compartment to a stable value (37.7°) with room temperature at 90° and both controls set at *N* (normal), 6.5 hours with energy consumption of 0.94 kwhr., corresponding to 3.3c. With temperature controls set at *4W* (storage), *6C* (freezer), time required to freeze 7.9 lb. of ice: tray 1 at left bottom, about 4.7 hours; tray 2 at middle and tray 3 at right bottom, about 3¾ hours. Temperature in cabinet during freezing period: maximum, 44° (storage), 26.5° (freezer); minimum 42.5° (storage), —11° (freezer). Cost of electricity consumed during freezing period, 3.2c. Cost of operation in no-load tests at 90.5° room temperature with an average temperature of 43.4° in food compartment and 8° in freezer space, controls set at *4W* (storage), *N* (freezer), $1.75 per month. This would correspond to approximately $1.31 per month with a room temperature of 80° (see text). With control of storage compartment set at *N* and control of freezer space set at *6C* (coldest position), average temperature in storage compartment was 37.2°, in freezer space —10.1°. Motor ran continuously and cost of operation amounted to $3.41 per month. Under the same conditions but with both controls set at *N*, average temperatures in storage and freezing compartments were 36.6° and 5.6°, respectively. Motor ran 42.3% of the time and cost of operation would be approximately $1.88 per month. In the load tests in room temperature of 90° with controls of storage compartment and freezer space set at *4W* and *6C* respectively, 19 1-qt. cartons of ice (34.2 lb.) previously frozen and four 1-qt. cartons of water at 70° (7.2 lb.) were loaded into the freezer space. In the first 2 hours the temperature of one carton of ice had risen from 8° to 18°. In 10 hours the first carton of water had frozen and in 15 hours all the water was frozen. During 24 hours temperature of the freezer compartment dropped to —10.5° (average), while the temperature in the general storage compartment remained at 42.5° except for a rise of 2° for 1 hour after load was inserted. Motor ran continuously during this period at a cost of operation of 12.2c. 3

★ ★ Corrections and Emendations to Consumers' Research Bulletins ★ ★

Kitchen Step-Stools
Cosco, Model 4-A
Page 6
April '47

The address of the Hamilton Manufacturing Corp. should have been given as Columbus, Indiana, instead of Two Rivers, Wisconsin. (The product itself showed only the manufacturer's name and the brand name, and omitted to give his address.)

Automobile Jacks
Page 14
June '47

Delete last sentence in listing of *Vulcan Ace-Hy* Hydraulic Bumper Jack.

The Economy of Retail Cuts of Different Grades of Beef

By SLEETER BULL, PROFESSOR OF MEATS, UNIVERSITY OF ILLINOIS

THE informed meat buyer is more or less familiar with the government grades of beef: Prime, Choice, Good, Commercial, and Utility. As with all commodities, the price of beef varies directly with the grade. In fact, there are large price differentials between beef grades because of the differences in cost of production.

In feeding experiments recently concluded at the University of Illinois, 1000 bushels of corn (worth around $2 a bushel) produced 12 *prime* graded steers or 10,300 pounds of *prime* beef; or 18 *choice* steers or 13,000 pounds of *choice* beef; or 45 *good* steers, equivalent to 25,000 pounds of *good* beef. *Commercial* and *utility* quality grades of beef are produced on cheap pasture and hay with little or no grain.

There is not only a difference in the prices of beef from the different grades, but also a difference in prices of different retail cuts from the same grade. These differences are not necessarily based upon the nutritive value of the cuts, but upon their popularity. In other words, the old law of supply and demand has not been repealed, either by the Congress or by bureaucratic edict.

Not all of a beef cut is eaten. Most cuts, especially those from the lower grades, contain considerable bone which is given to the dog or thrown out. Most cuts, especially those from the higher grades, contain considerable fat, most of which is usually thrown into the garbage can. Therefore the economy of beef depends not only upon the price per pound but also upon the amount of edible meat in the cut.

The University of Illinois has just completed an experiment in which 15 *prime*, 12 *choice*, 16 *good*, 15 *commercial*, and 8 *utility* graded carcasses were separated into retail cuts. Each cut was then divided into lean, fat, and bone, and the percentage of each determined.

Since most people buy beef primarily to obtain the lean, Charts I to V have been constructed, from which the cost of a pound of lean from any cut of each grade at the current market price may be calculated. To use the charts, lay a straight edge on the point which represents the meat cut on the left-hand scale and on the point which represents the price per pound on the center scale. The cost of a pound of lean is shown at the point where the straight edge crosses the right-hand scale. For example, porterhouse steak from a *choice* carcass sells at 80 cents a pound. Turning to the chart for *choice* beef, lay the straight edge on the point marked "Porterhouse steak" on the left-hand scale and extend it through the "Price per pound" scale at the point marked "80." The cost of a pound of lean meat is read from the right-hand scale at the point where the straight edge crosses it—$1.60. (This type of computing diagram is known as a nomograph, or nomogram, also as an alignment chart.)

Use of these charts demonstrates that *prime* and *choice* beef are luxury items beyond the pocketbooks of most people. *Commercial* and *utility* beef, although lacking in palatability, are economical sources of red meat for consumers with limited budgets. Beef graded *good* is recommended for those who desire palatability at reasonable cost. From the standpoints of both price and waste in use, cuts from the chuck and

Chart I

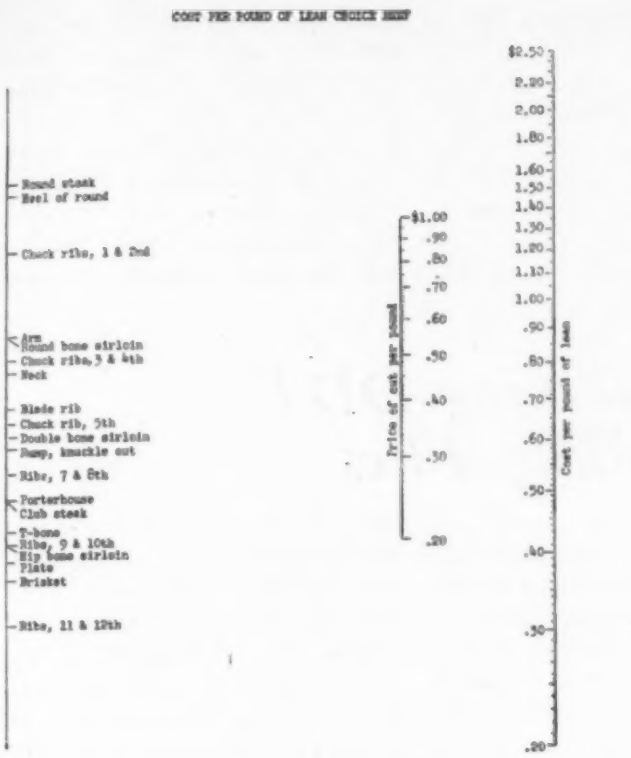


Chart II

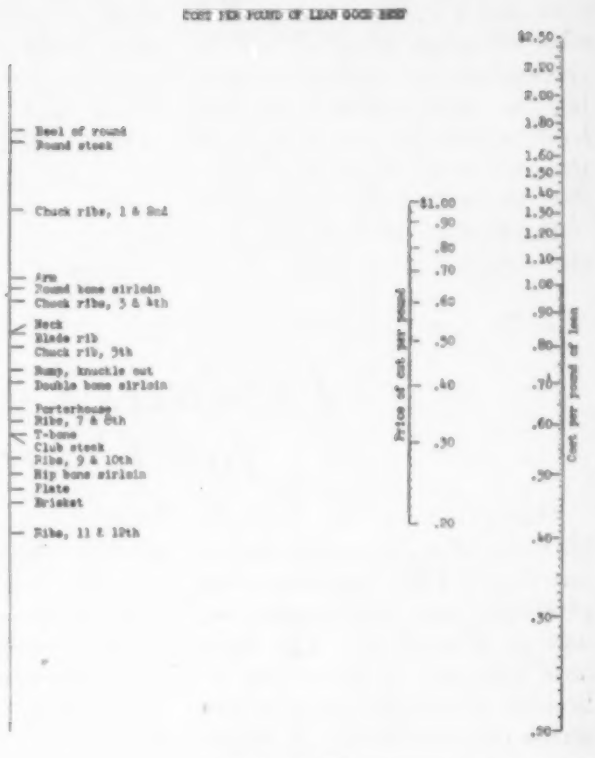


Chart III

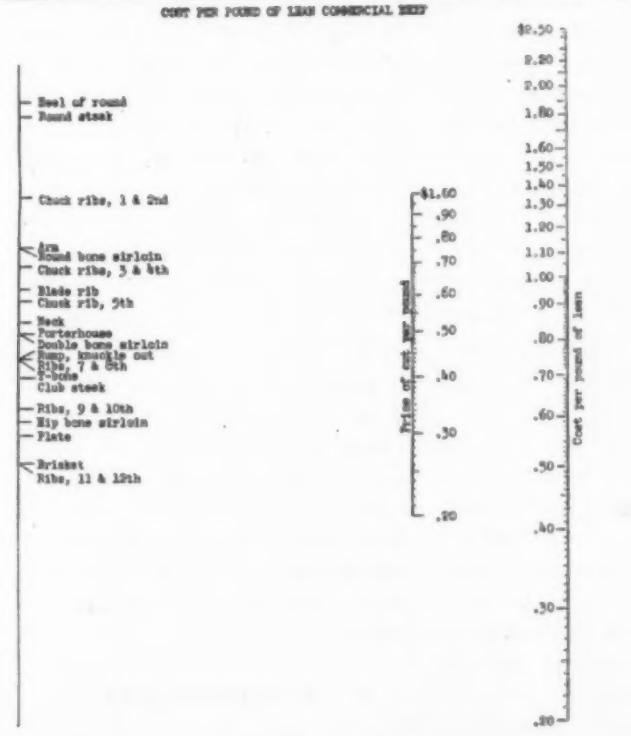


Chart IV

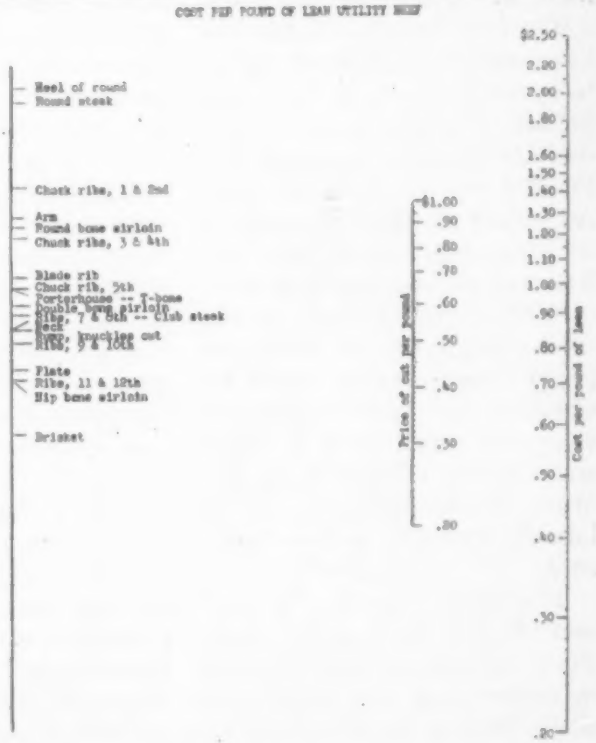


Chart V

round are much more economical than from the ribs, short loin, and sirloin.

There is considerable variation in the economy of different retail cuts from the same wholesale cut. Thus the 11- to 12-rib roast contains less lean than the 9- to 10-rib cut, which

contains less than the 7 to 8 ribs, although they all sell at the same price. The chuck ribs become more economical and have better eating quality from the fifth to the first rib. These cuts also sell at the same price.

Porterhouse, T-bone, and club steaks all contain about the same amounts of lean. Since club steaks sell at a lower price, they are more economical. Wedge and round bone, double-bone, and hip-bone sirloin steaks sell at the same price, but their economy decreases in the above order.

EDITOR'S NOTE: For a discussion of beef grades and retail cuts, see Consumers' Research *Annual Cumulative Bulletin*, Sept. 1947, col. 75-77, or write to the Illinois Agricultural Experiment Station, Urbana, Illinois, for Circular 585, "Beef for the Table," which will be sent without charge.

Products Containing DDT for Controlling Flies

D.D.T. Fly Cord, *Shoo-Fly Hangers*, and *Impco Fly Paper*, are three DDT - impregnated products sold for controlling flies in the home. The *Cord* and *Shoo-Fly Hangers* are to be hung in rooms; four or five strips of the *Impco Fly Paper* are to be laid in a 10 x 12 room where the insects gather.

The labeling of both the *Fly Cord* and *Impco* did not appear to be such as would be proper for a product to be sold in interstate commerce under the Federal Insecticide Act of 1910. According to this Act, carrier or inert ingredients and the toxicant must make up a total of 100%. In the case of the cord and paper, the cord and paper bases, which must be considered as inert ingredients, were not considered in label statements. *Shoo-Fly*, on the other hand, appeared to be labeled correctly as to ingredients.

The label claims for *Fly Cord* and *Impco* were misleading. *Fly Cord* claimed that "A cord in each room will keep your home free from flies." This would seem to be a gross overstatement, since to keep any enclosure free from flies, flies would necessarily have to be prevented from entering. *Impco* made no specific claims for controlling flies except that "insects. . .become infected, fly off, and die." The problem would appear to be merely that of getting the flies to rest on the paper long enough to obtain a lethal dose. For roaches and silverfish, it was suggested that the strips be placed in an infested area. In a laboratory test of *Impco*, the results were so poor that there was grave doubt that any practical effect in killing roaches would be obtained in home use.

Shoo-Fly advised using the entire sheet (ten 18-in. strips) hung from or near ceilings for the average home, and specifies greater quantities of strips if flies are numerous. This appears to be good labeling and the procedure would give satisfactory home fly control if the product has a sufficient surface deposit of DDT on both sides.

DDT-treated cords, strips, or other devices hanging from ceilings (strips of muslin impregnated with a DDT solution have proved satisfactory) offer an effective means for suppressing flies in homes in regions where the night temperatures are sharply lower than those of the day. Under these conditions, flies migrate toward ceilings and are greatly attracted to dangling objects on which to cling. If these are overcrowded, the late-comers rest on ceilings and adjoining upper walls. Presumably flies sleep in these locations, for at least they become quiescent until aroused by the rising temperatures of morning. Thus, flies resting on surfaces effectively treated with DDT stay there long enough to acquire a lethal dose and drop to the floor (with no intervening period of unusual activity, such as occurs when they are affected during their daytime activity).

In hot climates, where the night temperature remains favorable to activity of the insects (temperatures perhaps above 80°F) flies rest wherever they happen to be and do not migrate en masse to ceilings. Dangling objects are so much less effective under these circumstances that they are of doubtful value, and surface treatments of walls and ceilings accomplish far greater results.

B. Intermediate

Shoo-Fly Hangers (The Conco Corp., 82 Audubon St., New Haven 11, Conn.) 10c for a pkg. containing ten 18-in. strips. Labeled: "Active ingredients not less than 0.45% Dichloro - Diphenyl - Trichloroethane (D.D.T.). Inert ingredients not more than 99.55%."

C. Not Recommended

D.D.T. Fly Cord (Royal Laboratories, Winter Park, Fla.) $1 for a pkg. of 4. Labeled: "Active insecticidal ingredients dichloro-diphenyl-trichlorethane, 100%." Would not be effective if used as directed on label, i.e., a cord in each room. Would appear to be improperly labeled, through failure to include cord itself as inert ingredient.

Impco Fly Paper Impregnated with 10% DDT (Imco Products Co., Bridgeport, Conn.) 10c for 1 sheet. Labeled: "Active Ingredients—Dicloro - Diphenyl - Trichloroethane 10%. Inert Ingredients—Coloring, Carbon Tetrachloride 90%." Would not be suitable for use against flies unless placed on the ceiling or in some other part of the room where flies rest in considerable numbers. Should at the same time be placed well out of reach of children or grown persons and where it could not cause any contamination of food substances. When tested against roaches by use in the manner recommended by the manufacturer, proved not to be effective. Contrary to label claims, contained no carbon tetrachloride and would appear further to be improperly labeled, through failure to include paper as inert ingredient.

Treatment of Damaged Trees

WHEN a tree has been bruised by a lawn mower, automobile, or in another accident, it is often treated with a wound paint or by binding with tape to keep out water and retain what moisture the wood needs to avoid brittleness and breakage. If by the latter, care should be taken not to leave the tape about the tree too long because of the danger of constricting the bark and consequent injury to the growing portion of the tree directly under the bark. If the tape is applied in the fall, it might perhaps be allowed to remain until late winter, but it should be removed before the sap begins to flow in the late winter.

After removing the tape, any bark that is loose should be carefully cut away, leaving the wound pointed at the top and the bottom. The exposed wound should then be painted with a tree wound dressing or with what tree men call a "graft coating."

The oldest and most commonly used wound dressing is *Corono Wound Paint*, made by the Corona Chemical Co. Well-known graft coatings are *Static Protective Coating* (Flintkote Co., 30 Rockefeller Plaza, N.Y.C.), and *Foster's I.B.M. Dispersion* (Benjamin Foster Co., 20th St. and Erie Ave., Philadelphia).

The next best coating would be a paint, such as a house paint, in which the vehicle is linseed oil with, possibly, turpentine. It is not advisable to use a paint with a synthetic or mineral spirits vehicle, or indeed any oily or caustic preparation.

Off the Editor's Chest

[*Continued from page 2*]

appliances and putting them into good working order is more of a problem. The importance of an expert serviceman who knows his business cannot be overestimated. One dealer who back in 1940 hadn't bothered to do much in way of reconditioning the models turned in on new purchases, discovered in due course that it would pay him well to put the used refrigerators into good operating condition. The serviceman that he had employed was a factory-trained serviceman who simply replaced the hermetically sealed unit of this particular make with another and sent the worn-out or defective unit back to the factory. As he had had no experience with older models, the dealer was obliged to junk them. The dealer finally fired the "tire-changer" as he called him and secured the services of a real refrigerator mechanic who knew how to make proper repairs on almost any type or model of refrigerator.

What few experiences that have come to CR's attention with repairs of washing machines indicate that reconditioning such appliances is likely to be unreasonably expensive, and results on the whole unsatisfactory. The charges often come too close to equaling the original price of the machine. Apparently washing machines are like the one-hoss shay—when they begin to go, they are done for, or at least the repairman will act and charge as though this were the case. Judging from the close and detailed interest expressed by subscribers in CR's tests of washing machines, many new washers are being bought at this time by consumers everywhere.

It isn't easy to find a good (and honest) repairman, but with the prospect that high prices for electrical appliances will prevail for some time, consumers will probably find it worth their while to spend a little time and effort in locating one in their home town or some town or city near by. In some cases, the original dealer through whom the purchase was made can be of help.

Engineers, particularly those connected with large industrial and public utility corporations are often in touch with expert repairmen in connection with their professional work and can sometimes make useful recommendations.

Be sure to get references from a new serviceman so that you can check on previous jobs which he has done, whether they were well done and whether charges were reasonable. (Some very sad—and costly—experiences have been reported by victims of unscrupulous repairmen, particularly in the vacuum cleaner field.)

The problem of keeping his make of appliances in good working order is one which ought to be of concern to every large manufacturer, but as soon as supplies are ample, dealer pressure will no doubt be brought to bear to push new models, rather than encourage repair of the old ones, and thrifty consumers will be left to fend for themselves. The more resourceful they prove themselves to be in this respect, however, the more effective will be their influence in bringing down prices of new appliances, and in keeping dealers in a proper frame of mind toward economy of costs of repairs and adjustments as seen through consumers' eyes.

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† indicates that listings of names or brands are included.

Disinfection by Ultraviolet Lamps— An Additional Finding Reported

In our February 1947 BULLETIN, we discussed the use of ultraviolet lamps for killing germs, and pointed out that there seemed to be no justification for the belief that air could be effectively disinfected by ultraviolet illumination in schools, theaters, stores, homes, and most work places. It was held that the utility of the lamps at present seems to be in such places as hospital operating rooms, certain pharmaceutical-manufacturing plants, etc. Recently the Bureau of Animal Industry has made some studies of ultraviolet lamps used in underground poultry houses, and over a two-year period of use, found no significant difference in the mortality of laying birds in an ultraviolet-lighted laying-house as against an exactly similar house without the ultraviolet light. An additional limited experiment (of one month's duration) indicated, too, that there was no significant effect from the use of ethylene glycol vapor as a disinfecting means.

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Charm, Chicago Daily Tribune, The Christian Century, Cue, Daily News (N.Y.), *The Exhibitor, Harrison's Reports, Motion Picture Herald, National Legion of Decency List, Newsweek, New York Herald Tribune, New York Times, Parents' Magazine, Release of the D.A.R. Preview Committee, Successful Farming, Time, Variety* (weekly), and *Unbiased Opinions of Current Motion Pictures* which includes reviews by the General Federation of Women's Clubs, the American Legion Auxiliary, National Film Music Council, and others.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Technicolor, Cinecolor Trucolor, Magnacolor, or Vitacolor)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
soc—social-problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	3	2	**Adventures of Don Coyote**	*mus-wes-c AYC*
2	10	—	**Adventuress, The**	*war-mel A*
—	5	2	**Angel and Sinner**	*dr A*
—	11	2	**Angel and the Badman**	*wes AYC*
—	6	3	**Apache Rose**	*mus-wes-c AYC*
—	7	2	**Arnelo Affair, The**	*mys-mel A*
1	8	1	**Bachelor and the Bobby-Soxer, The**	*com AY*
—	1	8	**Backlash**	*mys-mel A*
—	4	5	**Bamboo Blonde, The**	*mus-war-rom A*
—	3	6	**Banjo**	*dr AYC*
1	4	3	**Barber of Seville, The**	*mus-dr AY*
—	2	6	**Beat the Band**	*mus-com A*
—	6	3	**Before Him All Rome Trembled**	*war-mus-dr A*
3	11	6	**Beginning or the End, The**	*war-dr AYC*
1	3	4	**Bellman, The**	*mel A*
—	6	—	**Bells of San Angelo**	*mus-wes-c AYC*
—	1	5	**Bells of San Fernando**	*mel A*
—	3	2	**Big Fix, The**	*mel AY*
—	2	4	**Big Town**	*dr A*
2	4	—	**Black Gold**	*dr-c AYC*
—	1	4	**Black Narcissus**	*dr-c A*
—	10	6	**Blaze of Noon**	*dr AYC*
—	2	4	**Blind Spot**	*mys-mel A*
—	3	4	**Blondie's Holiday**	*com AYC*
2	5	1	**Bob, Son of Battle**	*dr-c AY*
2	13	1	**Boomerang**	*cri-mel A*
—	2	2	**Border Feud**	*wes AY*
—	4	11	**Born to Kill**	*cri-mel A*
—	—	7	**Born to Speed**	*mel AYC*
—	2	2	**Boy! What a Girl**	*mus-com AY*
—	7	9	**Brasher Doubloon, The**	*mys-mel A*
—	4	3	**Brute Force**	*cri-mel A*
—	8	2	**Buck Privates Come Home**	*com AYC*
—	—	4	**Buffalo Bill Rides Again**	*wes AYC*
—	—	3	**Bulldog Drummond at Bay**	*mys-mel AYC*
1	8	1	**Cage of Nightingales, A**	*dr A*
—	5	11	**Calcutta**	*cri-mel A*
—	5	4	**Calendar Girl**	*mus-com AY*
2	8	4	**Captive Heart, The**	*war-dr AY*
—	8	5	**Carnegie Hall**	*mus-dr A*
—	7	3	**Carnival in Costa Rica**	*mus-com-c AY*
—	3	4	**Carnival of Sinners**	*dr A*
—	10	5	**Cheyenne**	*mus-wes A*
—	2	1	**Christmas Eve**	*dr A*
—	—	7	**Cigarette Girl**	*mus-com A*
—	1	2	**Citizen Saint**	*doc-dr AYC*
—	3	3	**Code of the West**	*wes AYC*
—	2	1	**Colonel Chabert**	*dr A*
1	10	3	**Copacabana**	*mus-com A*
—	2	4	**Corpse came C.O.D., The**	*cri-com A*
—	4	1	**Crimson Key, The**	*mys-mel A*
1	6	2	**Crossfire**	*soc-mel A*
—	3	7	**Cry Wolf**	*mys-mel A*
1	6	—	**Cynthia**	*com AYC*
—	1	7	**Danger Street**	*cri-mel A*
—	3	3	**Dangerous Venture**	*wes AYC*
—	4	7	**Dark Delusion**	*dr AY*
—	7	10	**Dead Reckoning**	*mel A*
1	12	2	**Dear Ruth**	*com AY*
—	3	2	**Desperate**	*cri-mel AY*
1	—	4	**Devil on Wheels, The**	*mel AYC*
—	7	3	**Devil Thumbs a Ride, The**	*mel A*
—	3	8	**Dick Tracy's Dilemma**	*cri-mel A*
—	8	7	**Dishonored Lady**	*dr A*
—	3	1	**Down to Earth**	*mus-fan A*
—	3	1	**Dragnet**	*cri-mel AY*
3	5	9	**Duel in the Sun**	*wes-c A*
—	3	12	**Easy Come, Easy Go**	*com A*
—	13	4	**Egg and I, The**	*com A*
—	1	2	**Escape Me Never**	*dr A*
—	7	6	**Fabulous Dorseys, The**	*mus-biog AYC*
—	2	6	**Fall Guy**	*mys-mel AY*
2	14	—	**Farmer's Daughter, The**	*com A*
—	8	4	**Fear in the Night**	*cri-mel AY*
3	8	2	**Fiesta**	*mus-dr-c AY*
—	1	2	**Fighting Frontiersman, The**	*wes AYC*
—	3	4	**For the Love of Rusty**	*dr AYC*
—	7	7	**Framed**	*mel A*
—	3	2	**Francis the First**	*fan AY*
—	3	4	**Fun on a Weekend**	*com A*
—	—	4	**Gas House Kids Go West**	*com AY*
2	10	3	**Ghost and Mrs. Muir, The**	*fan A*
—	1	4	**Ghost Goes Wild, The**	*com A*
—	1	2	**Great Betrayal, The**	*doc A*
11	6	1	**Great Expectations**	*nov AYC*
—	—	3	**Green Cockatoo**	*cri-mel A*
—	4	2	**Green for Danger**	*mys-mel A*
1	9	6	**Guilt of Janet Ames, The**	*dr A*
—	6	2	**Guilty, The**	*mys-mel A*
1	7	5	**Gunfighters**	*wes-c A*
—	—	4	**Hard Boiled Mahoney**	*mel A*
—	3	2	**Heartaches**	*mus-mel AYC*
—	4	2	**Her First Affair**	*dr A*
—	13	4	**High Barbaree**	*dr AYC*
—	8	1	**High Conquest**	*adv A*
—	9	3	**Hit Parade of 1947**	*mus-com AY*
—	2	•1	**Hollywood Barn Dance**	*mus-com AY*
—	4	—	**Homesteaders of Paradise Valley**	*wes AYC*
—	7	9	**Homestretch, The**	*dr-c A*
—	5	10	**Honeymoon**	*mus-com A*
—	—	4	**Hoppy's Holiday**	*wes AYC*
2	9	3	**Hucksters, The**	*nov A*
—	4	3	**I Cover Big Town**	*cri-mel A*

A	B	C		
1	4	2	**I Know Where I'm Going**	*dr A*
—	3	1	**I Live as I Please**	*mus-dr AYC*
1	6	3	**I Wonder Who's Kissing Her Now**	*mus-com-c A*
—	8	7	**I'll Be Yours**	*mus-com A*
—	4	9	**Imperfect Lady, The**	*dr A*
2	13	—	**It Happened in Brooklyn**	*mus-com AYC*
—	13	2	**It Happened on Fifth Avenue**	*mus-dr A*
—	4	8	**Ivan the Terrible**	*hist-dr A*
—	6	7	**Ivy**	*mys-mel A*
—	1	8	**Jewels of Brandenburg**	*cri-mel AY*
—	8	8	**Johnny O'Clock**	*mys-mel A*
—	1	7	**Jungle Flight**	*dr A*
—	2	3	**Keeper of the Bees**	*rom AYC*
—	1	3	**Killer at Large**	*cri-mel A*
—	3	1	**Killer Dill**	*cri-com A*
—	4	2	**Kilroy Was Here**	*com AY*
—	2	4	**King of the Wild Horses**	*mus-mel AYC*
2	3	2	**King's Jester, The**	*mel A*
—	6	3	**Lady Surrenders, A**	*rom A*
—	—	4	**Land of the Lawless**	*wes A*
—	—	3	**Last of the Red Men**	*nov-c AYC*
—	—	4	**L'Atalante**	*dr A*
2	13	2	**Late George Apley, The**	*nov A*
—	—	3	**Law Comes to Gunsight**	*wes AYC*
—	—	6	**Law of the Lash**	*wes AYC*
—	1	2	**Life Begins Anew**	*dr A*
—	1	4	**Lighthouse**	*dr A*
—	3	5	**Likely Story, A**	*com A*
—	2	4	**Little Miss Broadway**	*com A*
—	4	6	**Living in a Big Way**	*mus-dr A*
—	1	3	**Lone Hand Texan, The**	*mus-wes AYC*
—	2	1	**Long Night, The**	*dr A*
—	5	5	**Lost Honeymoon**	*com AY*
—	3	8	**Love and Learn**	*mus-com A*
—	8	5	**Love Laughs at Andy Hardy**	*mus-com AY*
1	3	1	**Lured**	*cri-mel A*
—	7	9	**Macomber Affair, The**	*dr A*
—	5	7	**Magic Bow, The**	*mus-nov AYC*
—	7	5	**Man's Hope**	*war-dr A*
—	2	2	**Marauders, The**	*wes AYC*
—	3	2	**Merton of the Movies**	*com A*
—	4	4	**Michigan Kid**	*wes-c AYC*
—	—	3	**Millerson Case, The**	*cri-mel A*
—	1	5	**Millie's Daughter**	*dr A*
5	12	1	**Miracle on 34th Street**	*com AYC*
1	3	7	**Monsieur Verdoux**	*dr A*
—	9	6	**Moss Rose**	*mys-mel A*
—	7	5	**Mr. District Attorney**	*cri-mel A*
—	10	3	**My Brother Talks to Horses**	*com AYC*
1	13	—	**My Favorite Brunette**	*com AY*
—	6	6	**New Orleans**	*mus-dr A*
—	3	3	**Newshounds**	*cri-com AY*
—	1	2	**Nicholas Nickleby**	*nov AY*
—	3	13	**Nora Prentiss**	*dr A*
—	5	1	**Northwest Outpost**	*mus-rom A*
4	10	4	**Odd Man Out**	*dr A*
—	—	4	**Oregon Trail Scouts**	*wes AYC*
1	8	7	**Other Love, The**	*mus-dr A*
—	—	4	**Over the Sante Fe Trail**	*mus-wes AYC*
—	1	5	**Patient Vanishes, The**	*cri-mel A*
2	10	1	**Perils of Pauline**	*mus-com-c AY*
—	2	5	**Philo Vance Returns**	*mys-mel A*
—	—	6	**Philo Vance's Gamble**	*mys-mel A*
—	3	5	**Pilgrim Lady, The**	*com A*
—	1	3	**Pioneer Justice**	*wes AYC*
1	7	6	**Possessed**	*dr A*
—	5	13	**Private Affairs of Bel Ami, The**	*dr A*
—	10	4	**Pursued**	*wes A*
1	1	2	**Queen for a Night**	*mus-rom A*
—	—	4	**Queen of the Amazons**	*mel A*
—	2	2	**Queen's Necklace, The**	*hist-dr A*
—	1	2	**Raiders of the South**	*mus-wes AYC*
—	1	2	**Rainbow over the Rockies**	*mus-wes AYC*
1	6	6	**Ramrod**	*wes A*
—	4	1	**Range Beyond the Blue**	*mus-wes AYC*
1	12	2	**Red House, The**	*cri-dr A*
—	2	1	**Renegade Girl**	*mel A*
—	8	7	**Repeat Performance**	*fan A*
—	1	2	**Riding the California Trail**	*wes AYC*
—	6	3	**Riff-Raff**	*mel A*
—	3	—	**Road Home, The**	*war-dr A*
—	8	1	**Romance of Rosy Ridge**	*mus-dr AY*
—	4	—	**Roosevelt Story, The**	*doc AY*
—	3	1	**Rustlers of Devil's Canyon**	*wes AYC*
—	1	3	**Saddle Pals**	*mus-com AY*
—	2	3	**San Demetrio, London**	*war-mel AY*
—	5	9	**San Quentin**	*mel A*
—	3	3	**Sarge Goes to College**	*mus-com AY*
—	—	4	**Scared to Death**	*mys-c A*
—	9	8	**Sea of Grass**	*wes-dr A*
—	2	1	**Second Chance**	*mys-mel AY*
1	3	1	**Secret Life of Walter Mitty, The**	*mus-com-c AY*
—	3	3	**Seven Keys to Baldpate**	*mys AY*
—	5	4	**Seven Were Saved**	*war-mel A*
—	—	3	**Shadows on the Range**	*wes AYC*
—	9	4	**Shocking Miss Pilgrim, The**	*mus-com-c AY*
—	3	1	**Shoot to Kill**	*cri-mel A*
—	5	—	**Shop Girls of Paris**	*dr A*
—	9	—	**Sin of Harold Diddlebock, The**	*com A*
—	12	3	**Sinbad the Sailor**	*adv-c AYC*
1	7	1	**Sioux City Sue**	*mus-wes AYC*
—	3	5	**Slave Girl**	*com-c A*
1	10	4	**Smash Up — The Story of a Woman**	*mus-dr A*
1	6	8	**Song of Sheherazade**	*mus-dr-c AY*
—	—	3	**Song of the Sierras**	*mus-wes AYC*
—	1	3	**Song of the Wasteland**	*mus-wes AYC*
—	3	2	**South of the Chisholm Trail**	*wes AYC*
—	2	4	**Spoilers of the North**	*mel A*
—	4	2	**Sport of Kings**	*dr AYC*
—	10	4	**Stallion Road**	*dr A*
—	—	6	**Stepchild**	*soc-dr A*
—	1	6	**Strange Holiday**	*mel A*
—	10	7	**Suddenly It's Spring**	*com A*
1	6	10	**Swell Guy**	*dr A*
—	4	6	**Tarzan and the Huntress**	*adv A*
—	3	8	**That Way With Women**	*com AY*
—	1	4	**That's My Gal**	*mus-com-c A*
—	6	5	**That's My Man**	*dr AY*
—	10	7	**They Won't Believe Me**	*mel A*
—	3	3	**Thirteenth Hour, The**	*cri-mel AY*
1	11	2	**This Happy Breed**	*dr-c AY*
—	5	4	**Three on a Ticket**	*mys-mel AY*
—	6	1	**Thunder Mountain**	*wes AYC*
—	3	15	**Time Out of Mind**	*nov A*
—	3	2	**Too Many Winners**	*cri-mel A*
1	5	2	**Torment**	*dr A*
—	6	6	**Trail Street**	*mus-wes AYC*
—	3	2	**Trail to San Antone**	*mus-wes AYC*
—	4	2	**Trespasser, The**	*mys-mel A*
—	7	8	**Trouble With Women, The**	*com A*
—	2	3	**Twilight on the Rio Grande**	*mus-wes AYC*
—	2	3	**Two Anonymous Letters**	*war-dr A*
—	5	11	**Two Mrs. Carrolls, The**	*mel A*
—	4	1	**Under the Tonto Rim**	*wes AYC*
—	8	—	**Undercover Maisie**	*com A*
—	4	4	**Unexpected Guest**	*wes AY*
1	6	3	**Unfaithful, The**	*dr A*
—	3	5	**Untamed Fury**	*mel A*
—	—	5	**Vacation Days**	*mus-wes AYC*
—	1	2	**Valley of Fear**	*wes AYC*
1	4	—	**Variety Girl**	*mus-com-c AY*
—	4	1	**Vigilantes of Boomtown**	*wes AYC*
—	5	5	**Vigilantes Return, The**	*wes-c AYC*
—	2	7	**Violence**	*mel A*
—	3	3	**Vow, The**	*dr A*
2	12	2	**Web, The**	*cri-mel A*
—	2	6	**Web of Danger**	*mel A*
2	9	1	**Welcome Stranger**	*mus-com AY*
—	1	2	**West of Dodge City**	*mus-wes AYC*
—	2	2	**West to Glory**	*mus-wes AYC*
—	7	11	**Wicked Lady, The**	*dr A*
—	—	4	**Wild Country**	*mus-wes AYC*
—	4	2	**Winter Wonderland**	*rom A*
—	3	11	**Woman on the Beach, The**	*dr A*
—	1	3	**Wyoming**	*wes AYC*
—	3	1	**Yank in Rome, A**	*war-dr A*
—	1	5	**Yankee Fakir**	*cri-mel AY*
—	—	3	**Youth Aflame**	*dr A*
—	—	4	**Zero de Conduite**	*dr A*

The Consumers' Observation Post

(Continued from page 4)

N.J. The new material sells at about one-sixth the price of the natural resin and promises certain improvements in the resulting product. If it secures wide acceptance, may we look forward to a reduction in present prices of phonograph records?

* * *

SOME PEOPLE WHEN THEY WORRY, eat more than usual and get fat, while others because of anxiety lose their appetites and get thin. An interesting example of the difference in individual reaction to a difficult family problem was briefly set forth in a recent issue of the Journal of the American Medical Association. As the result of a great emotional strain, the mother gained 26 pounds because she ate far more than normal to ease the tension. The father, on the other hand, lost 13 pounds in three weeks, experiencing loss of appetite, nausea, and weakness.

* * *

REMOVING THE DARK GREASY STAINS that accumulate on the interior surfaces of the oven ranks among the most distasteful of household chores. The grease which comes from broiling or roasting meat has "baked on," and ordinary washing or wiping will not remove it. The fumes of ammonia are reported to be helpful in softening this grease so it may be removed more easily. Home economists of the Department of Agriculture suggest placing a wadded cloth moistened with ammonia, or a shallow bowl of household ammonia, in the oven for several hours, or overnight. This will give the fumes time to loosen the greasy stains. An oven with a heavy layer of greasy deposits may need the treatment for several successive nights. It is believed that the method can safely be used for electric ranges, as there is no known adverse effect of ammonia fumes on the heating elements in electric ovens.

* * *

COFFEE continues to offer an endless field for scientific research. One of the most recent, reported by Science News Letter, carried out by Drs. John Haldi, Winfrey Winn, and Charles Ensor of Emory University, suggests that black coffee without sugar or cream is most effective in providing a "lift" for increased activity. It appears that sugar neutralizes the action of the caffeine to a considerable extent.

* * *

BUREAUCRACY can reach right into your home and protect you forcibly, against your own judgment. In July, this column reported that the federal government

Ready for mailing in two weeks

the new 1947

Annual Cumulative Bulletin!

THE long-awaited, big 200-page Annual Cumulative Bulletin for 1947 will be off the press in about two weeks' time and mailing will begin promptly to all individual subscribers who have placed advance orders for it. Since it is a confidential issue, it is, we regret to say, not available for libraries, schools, colleges, and other organizations. It summarizes in convenient fashion a wide range of CR's previous findings in the fields of household appliances and supplies, foods, heating equipment and fuel, automobiles, radios and radio equipment, photographic equipment, home maintenance, cosmetics, and clothing.

If you have not already placed your order, why not use the handy blank on the next page today?

had lost its case involving seizure of a quack medical device called Spectro-Chrome from a purchaser who claimed that he was entirely satisfied with it. We applauded the court's comment that there was no legal basis for the government's action which was nothing more than "a well intentioned effort by high-minded and zealous officials to protect a man from what they deem to be folly, to the extent of following him into his home and family and there divesting him of property." We note, however, in The Glass Packer for July 1947 that the Circuit Court has reversed the lower court's judgment. The merits of the case obviously do not warrant further appeal, but certainly the last decision sets a potentially dangerous legal precedent and gives undue encouragement to those who want government ever to extend its powers and controls over citizens and taxpayers.

* * *

NEW OR NEWLY AVAILABLE: Softee (Du-Rite Products Co., Inc., Brentwood, Md.), "safe fast suds for dishes, clothes," is one of the many soap substitutes now being sold in grocery stores and housewares departments. (This is not the same as Softee a Zeolite-type water softener made by the National Mfg. Co., Portland, Oregon, which is a device to be attached to the water faucet.) On analysis, Softee was found to be essentially: sodium sesquicarbonate, 72%; sodium chloride (salt), 12%; trisodium phosphate, 4%; sodium sulphate, 0.7%; soap, 5%; silica, 1.3%; and water of hydration, 5%. It would appear that the presence of the sodium chloride (common salt) in this product is as a diluent or makeweight (though some may hold that the salt has value as a "builder" in some synthetic detergents). Manufacturers have been hard put at times in the past to obtain alkaline salts needed for various cleaning compounds, and sometimes no doubt have had to eke out their formulas with other substances, usable as fillers. Softee, which might be more appropriately called builder with soap instead of soap with builder, does not seem to have a composition which would justify its claim that "Softee used according to directions will do anything that soap will do and do it better."

Non-Settling Plumbers' Putty (Plastic Products Co., Chicago) was a gray paste found upon analysis to consist of the following ingredients: linseed oil, 1%; light spindle oil, 10%; the balance, 89%, was calcium carbonate (equivalent to ground chalk or whiting).

Consumers' Research, Inc.
Washington, N. J.

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PHONOGRAPH RECORDS

By Walter F. Grueninger

***Please Note:** Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.*

ORCHESTRA

Bach: *Suites Nos. 2* and *3*. Boston Symphony Orchestra under Koussevitzky. 10 sides, Victor Set 1123. $5.85. Splendid works played beautifully. Recorded in Tanglewood with too little bass. Some surface noise. **Interpretation AA**
Fidelity of Recording A

Franck: *Le Chasseur Maudit* (4 sides) and *Psyche* (4 sides). Chicago Symphony Orchestra under Defauw. Victor Set 1122. $4.85. Contrasting symphonic poems. Unfortunately, only 3 of the 4 movements of *Psyche* are recorded. Both works ably performed. The recording is good domestic but *Le Chasseur Maudit* suffers when compared with the imported Decca Set EDA 20 ($5) which offers greater frequency and dynamic range. **Interpretation AA**
Fidelity of Recording A

Handel: *Twelve Concerti Grossi* (49 sides) and **Geminiani:** *Siciliana* (1 side). Busch Chamber Players under Adolf Busch. Columbia Set 685. $28.50. Noteworthy works. Robust performance befits the character of the music, but the recording would benefit by more bass. **Interpretation AA**
Fidelity of Recording A

Schumann: *Symphony No. 4*. Cincinnati Symphony Orchestra under Goossens. 6 sides, Victor Set 1124. $3.85. Melodious, grateful work. Sound performance though less subtle than the best competitor, Bruno Walter-London Symphony Victor Set 837. More highs and body but less bass than the Walter set. Gritty surfaces. **Interpretation A**
Fidelity of Recording A

Shostakovitch: *Symphony No. 9*. Boston Symphony Orchestra under Koussevitzky. 6 sides, Victor Set 1134. $3.85. Brilliant performance of a merry new work. Compared with Columbia Set 688, however, Victor offers more surface noise but less transparency, clarity and frequency range.
Interpretation AA
Fidelity of Recording B

Tchaikovsky: *Symphony No. 6* ("Pathétique"). Hollywood Bowl Symphony Orchestra under Stokowski. 12 sides, Victor Set 1105. $6.85. The outstanding feature is not the quality of the music which is a masterpiece you should own, nor the performance which is less exaggerated than you may expect, but the fact that the record surfaces are exceptionally noisy, surpassing in this objectionable quality any sets I have recently received from Victor. Principally because of this fault, I would avoid this set and try to buy in its place either Victor Set 85 (Furtwangler) or Columbia Set 558 (Rodzinski). **Interpretation A**
Fidelity of Recording B

CONCERTO

Tchaikovsky: *Concerto No. 2*. Shura Cherkassky (piano) and the Santa Monica Symphony under Rachmilovich. 8 sides, Concert Hall Society Set AM. $9. Inferior to the beguiling, popular *Concerto No. 1*. Performance sparkles at times, but lacks sufficient nuance. Limited frequency range, particularly weak bass, wavering in pitch on side 2, swishes on sides 4, 5, 8 and general lack of clarity and body. Pressed on plastic. **Interpretation A**
Fidelity of Recording B

LIGHT, POPULAR, AND MISCELLANEOUS

Gladys Swarthout Sings (mezzo-soprano). 6 sides, Victor Set 1127. $3. A luscious voice and fine artistry are wasted on trifles; "You're Everywhere," "I'll Remember April," etc.
Interpretation AA
Fidelity of Recording AA

Romberg: *Student Prince* Selections. A delightful score that pleases nearly everybody.

Wrightson, Dame, Greer, Briney (singers). Al Goodman and His Orchestra. 8 sides, Victor Set K8. $3.75. Mediocre singing. Two particularly scratchy sides, some unclean recording. **Interpretation B**
Fidelity of Recording A

Marek Weber and His Orchestra and Chorus. 8 sides, Columbia Set C 134. $3. Weber is particularly good at this sort of thing. His chorus includes many soloists who are above the average. Altogether, a set I thoroughly enjoyed. **Interpretation AA**
Fidelity of Recording AA

INSTRUMENTAL

Evelyn and Her Magic Violin. 8 sides, Columbia Set C 114. $3.57. Unprententious arrangements of eight songs. Well played, though schmalzy. Recording of highs, fuzzy. Included are "O Promise Me," "I Love You Truly," "Home Sweet Home," etc. **Interpretation AA**
Fidelity of Recording B

Heifetz Plays Modern Violin Transcriptions. 8 sides, Victor Set 1126. $3.75. Heifetz's transcriptions are new, excellent, masterfully played, well recorded. But I question the prolonged, widespread appeal of this music. **Interpretation AA**
Fidelity of Recording AA

VOCAL

Bach: *Cantata No. 4*. RCA Victor Chorale under Shaw. 8 sides, Victor Set 1096. $4.85. Lovely work consisting of an introductory Sinfonia and seven verses in the form of variations. Excellent balance, good recording and performance.
Interpretation AA
Fidelity of Recording AA

Britten: *Serenade for Tenor, Horn, and Strings*. Peter Pears (tenor), Dennis Brain (horn), and Boyd Neel String Orchestra under the composer. 6 sides, Decca Set EDA 7. $4. An unfamiliar modern work that has a lot to commend it to the musically-wise who seek a change. Poems by Jonson, Keats, Cotton, Blake and others set to music. The tenor wobbles a bit but otherwise performance and recording of this imported set are impressive. **Interpretation AA**
Fidelity of Recording AA

Folksongs and Ballads: Volume 2. Susan Reed (singer). 6 sides, Victor Set 1107. $3. No less welcome than the first album (Victor Set 1086) though "Lord Randall" and "Danny Boy" have been sung more effectively by many concert artists. Included are "Greensleeves," "Mother I would Marry," "Black is the Color," etc. **Interpretation A**
Fidelity of Recording AA

Patter Songs from Gilbert and Sullivan—Volume II. Nelson Eddy (baritone). 6 sides, Columbia Set 670. $3.25. Humorous numbers from the "Pirates of Penzance," "Patience," "Trial by Jury," etc. Assets include clear diction and warm voice; liability—lack of Gilbert and Sullivan style. Well recorded though the "Princess Ida" selections reveal less clarity than other sides. **Interpretation A**
Fidelity of Recording AA

Pergolesi: *Stabat Mater*. Nottingham Oriana Choir under Roy Henderson, Boyd Neel Orchestra, Joan Taylor (soprano), Kathleen Ferrier (contralto). 10 sides, Decca Set EDA 13. $11. Charming, melodious sacred music—one of two major works of this eighteenth century composer which are still performed. Superb import. **Interpretation AA**
Fidelity of Recording AA

Get the book that tells you why!

Meat Three Times A Day
by
F. J. Schlink and M. C. Phillips

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Meat on the Table: How to Buy and How to Cook It	X
Better Eating for America	XI

THIS book presents a history of man's meat-eating habits, with particular emphasis upon the food customs of the early settlers in the United States. It sets forth the important part which meat played in giving pioneer Americans the vigor, energy, and capacity for hard work and innovation they possessed. It shows the uniquely important properties of meat in prevention and cure of a number of disease conditions and demonstrates its fundamental superiority over the commoner, cheaper carbohydrate foods, such as cereals and vegetables.

PRACTICAL advice is given on how to select different cuts and grades of meat and how to cook them to realize the maximum food and flavor values. Although this new book is soundly based on the wealth of scientific data in CR's files, as well as considerable independent research by the authors, it is popularly written. In fact, there will be moments when the reader will want to lay the book down and rustle a hamburger or a roast beef sandwich.

THERE is a chapter on the fundamental character of protein as the most essential type of food for man, and another debunking the various superstitions and dietary propaganda that have led people to "cut down on meat." The book is of interest to every man — and woman — who has wanted to eat more meat but has been made to feel that it "was not good for him."

Would you rather have roast beef than a vegetable plate for lunch?

Do you ever have a secret yearning to order steak for breakfast?

Do you prefer pork chops to vitamin pills?

Do you find unsatisfying the various "meat substitutes" such as baked beans, peas, vegetable chowders, or soybean and nut concoctions that are supposed by many to be "better for you" than meat?

Your instincts are sound. There is no basis for the superstition that too much meat is "bad for you." Careful examination of the scientific and technical literature as well as the history of the eating habits of our people from early times all point to one fact: *This country grew up on meat — lots of it.*

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